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RESULTS OF TESTS ON A 0.04-SCALE SPACE SHUTTLE ORBITER FOREBODY MODEL (83-0) IN THE AEDC VKF HYPERSONIC WIND TUNNEL "B" TO OBTAIN AERODYNAMIC HEATING DISTRIBUTION ON LOWER FUSELAGE AND RCS NOZZLE AREAS

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by

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Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:	AEDC HWTB V41B-V2A
NASA Series Number:	ØH103A
Model Number:	83-Ø
Test Date:	February 20, 1978
Occupancy Hours:	8

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ABSTRACT

Entry (hypersonic) heat transfer tests of a 0.04-scale SSV Orbiter forebody model were conducted in the 50-inch diameter wind tunnel (test section B) at the Arnold Engineering Development Center's von Karman Gas Dynamics Facility on February 20, 1978. These tests obtained thin-skin heat transfer data around the reinforced-carbon-carbon/reusable-surface-insulation interface area of the lower fuselage and in the RCS nozzles.

Data were obtained under simulated re-entry conditions at a Mach number of 8 and Reynolds numbers of 0.5, 0.875 and 1.6 x 10^6/ft. Angle of attack varied from 25° to 42.5° at 0° sideslip. Tabulated results are presented in the Appendix.

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NOMENCLATURE

SYMBOL	MNEMONIC	DESCRIPTION
α	ALPHA	model angle-of-attack, degrees
β	BETA	model angle of sideslip, degrees
b		model skin thickness, in. or ft.
c_p		specific heat of either gauge or model skin, $\frac{Btu}{lbm-^oR}$
dTw/dt	DTW/DT	wall temperature change with time, $^oR/sec$
ε		incidence angle of local model surface, deg.
h_{ref}	HREF	reference heat-transfer coefficient based on Fay-Riddell theory, $Btu/ft^2-sec.-^oR$

$$= \left[\frac{8.17173(PT2)^{0.5}(MU)^{0.4}(1-(P/PT2))^{0.25}}{(RN)^{0.5}(TO)^{0.15}} \right] x$$

$$\left[\frac{0.2235 + 0.0000135(TO+560)}{(RN)^{0.5}(TO)^{0.15}} \right]$$

where PT2 - stagnation pressure downstream of a normal shock, psia

P = freestream static pressure, psia

MU = air viscosity based on TO, $lbf-sec/ft^2$

RN = reference nose radius = 0.06 ft

TO - tunnel total temperature, ^oR

h_o	H(TO)	heat-transfer coefficient computed from the measured heat-transfer rate using the tunnel stilling chamber temperature as the reference temperature

(QDOT/(TO-TW)), Btu/ft^2-sec-^oR

NOMENCLATURE (Continued)

SYMBOL	MNEMONIC	DESCRIPTION
.9h	H(.9TC)	heat-transfer coefficient computed from the measured heat-transfer rate using 0.9TO as the reference (QDOT/(0.9TO-TW)), Btu/ft^2-sec-^oR
h_{TAW}	H(TAW)	heat-transfer coefficient computed from the measured heat-transfer rate using adiabatic-wall temperature (T_{AW}) as the reference (QDOT/(TAW-TW)), BTU/ft^2-sec-^oR
h/h_{ref}	H/HREF	H(TO) divided by HREF, dimensionless
$.9h/h_{ref}$	H/HREF	H(.9TO) divided by HREF, dimensionless
h_{TAW}/h_{ref}	H/HREF	H(TAW) divided by HREF, dimensionless
k		gauge thermal conductivity, Btu/ft-sec-^oR
ℓ		model length, 25.8 in.
L		Reference length, 51.6 in.
$\dot{q}$	QDOT	heat treansfer rate, BTU/ft^2-sec
q_∞	Q	freestream dynamic pressure, psi
Re_ℓ	RN/FT	unit Reynolds number, million per foot
Tw	TW	model wall temperature, ^oR
Y/(B/2)	2Y/B	distance from vehicle centerline divided by the wing semi-span
X_o	X	axial coordinate, in.
Y_o	Y	lateral coordinate, in.
Z_o	Z	vertical coordinate, in.
M_∞	MACH	freestream Mach number
μ_∞	MU	freestream viscosity, $lb\text{-}sec/ft^2$
P_∞	P	freestream static pressure, psia
P_o	PO	tunnel stilling chamber pressure, psia
P_{t_2}	PT2	total pressure behind a normal shock, psia
ϕ	PHI	Radial angle of T/C on model, deg.

INTRODUCTION

Entry aero-heating test OH103A obtained thin-skin heat transfer data around the reinforced carbon-carbon/reusable-surface-insulation (RCC-RSI) interface area of the lower fuselage and for the forward RCS nozzles of the Space Shuttle Orbiter.

The test article was a 0.04-scale thin-skin thermocouple model of the forward 50 percent of the Rockwell International Orbiter Vehicle, designated the 83-Ø model.

The model was tested in the 50-inch diameter Hypersonic Wind Tunnel (B) at the Arnold Engineering Development Center's von Karman Gas Dynamics Facility, on February 20, 1978; completing a total of 8 hours in the facility.

Data were obtained under simulated re-entry flight conditions; nominal Mach of 8.0 through an angle-of-attack range from 25 to 42.5 degrees at Reynolds number of 0.5×10^6, 0.875×10^6, and 1.6×10^6 per foot.

This report presents information on the conduct of the test, details of the model, test facility and instrumentation , along with the tabulated data results.

REMARKS

The test plan (reference 1) called for 54 test points to describe the data matrix of 6 angles of attack (α = 25°, 30°, 35°, 37.5°, 40°, 42.5°) at three Reynolds numbers (R_e = 0.5, 0.875, 1.65 x 10^6/ft.) for three sets of thermocouple groupings (switch positions). As tested, the matrix contained 72 test points; 18 of which were reruns. Of these reruns, four obtained data repeatability values. The other 14 were executed to verify or rectify anomalies which occurred that would affect data quality.

The first anomaly was observed at run 28 when it was determined that thermocouple group 3 (switch position 3) was not being cooled to an isothermal state prior to the model being injected into the tunnel. As a result, the RCS nozzle heating data quality was suspect. Most of these data were rerun, as can be seen in Table II. Those that were not (runs 13, 16, 19) should be analyzed with caution.

The second test anomaly occurred at an angle of attack of 42.5° for Reynolds number conditions of 0.5 and .875 x 10^6/ft. The Schlieren system revealed the tunnel flow to be marginally established with local unstarting occurring on the aft lower surface of the model. These points were re-run with the model center of rotation and the tunnel diffuser parameters changed and showed fully developed flow over the entire model. Runs 35, 36, 37, 62, 63 and 64, as pointed out in Table II are the questionable runs and should be used with the above comments in mind.

CONFIGURATION INVESTIGATED

The test article, designated the 83-Ø model, is a 0.04-scale thin-skin thermocouple model of the forward 50 percent of the Rockwell International Space Shuttle Orbiter (Rockwell lines VL70-000140C). The model was constructed of 17-4PH stainless steel with a nominal 0.025-in. skin thickness at the instrumented areas. A model sketch showing overall length and coordinate definitions is presented in Fig. 1, an installation sketch is shown in Fig. 2, and a photograph of the model injected in the Tunnel B test section is given in Fig. 3. Model dimensional data specifications are presented in Table III.

INSTRUMENTATION AND PRECISION

Tunnel B stilling chamber pressure was measured with a 100- or 1000- psid transducer referenced to a near vacuum. Based on periodic comparisons with secondary standards, the uncertainty (a bandwidth which includes 95-percent of residuals) of the transducers was estimated to be within ±0.1 percent of reading or ±0.06 psi whichever was greater for the 100-psid range and ±0.1 percent of reading or ±0.5 psi whichever was greater for the 1000-psid range. Stilling chamber temperature measurements were made with Chromel®-Alumel® Thermocouples which had an uncertainty of ±(1.5°F + 0.375 percent of reading) based on repeat calibrations.

The 83-Ø model instrumentation consisted of 482 Chromel® constantan thermocouples (TC), of which 255 thermocouple locations were monitored for the subject tests. During model installation, the thermocouple instrumentation was checked for continuity and response. Thirteen of the 255 thermocouples were found to be non-operative. Two additional thermocouple channels dropped out during the tests. The bad instrumentation channels are shown in Table V and the data from these instruments were deleted from the tabulations. The TC wire was #30 AWG (0.010-in.) with Kapton® insulation. At the measurement point, the TC wires were spot welded to the inner surface of the model skin. The estimated wire measurement precision was ±0.5 percent of the reading.

TC instrumentation locations are illustrated in Fig. 4. Their dimensional locations and the model skin thickness at each position is listed in Table IV.

The thermocouple output was digitized via a Beckman 210 converter system. The Beckman system was set up to sample 98 TC's every 0.067 sec; the analog-to-digital conversion introduced approximately ±0.5 deg uncertainty into the TC measurements. Three different hookups were required to sample all the 255 TC's; summaries of the TC hookups for the three different switch positions are presented in Table V.

An evaluation of the influence of random measurement errors provides a partial measure of the uncertainty of the final test results presented in this report. Although evaluation of the systematic measurement error (bias) is not included, it should be noted that the instrumentation precision values quoted earlier and used in this evaluation, represent a total uncertainty combination of both systematic and two-sigma random error contributions.

Uncertainties in the basic tunnel parameters P_o and T_o and the two-sigma deviation in Mach number determined from test section flow calibrations were used to estimate uncertainties in the other freestream properties, using the Taylor series method of error propagation.

	Uncertainty (±) percent					
M_∞	M_∞	P_o	T_o	P_∞	q_∞	Re_ℓ
7.88	0.5	0.1	0.4	3.3	2.2	1.5
7.93	0.4	↓	↓	2.4	1.7	1.2
7.97	0.3	↓	↓	1.6	1.1	1.0

INSTRUMENTATION AND PRECISION (Concluded)

Estimated uncertainties for the individual terms in Eq. (2) of the data reduction were used in the Taylor series method of error propagation to obtain uncertainty values of heat-transfer coefficient as represented typically by the ranges listed below:

h_o	Uncertainty (±), percent
10^{-4}	10
10^{-3}	7
10^{-2}	5

TEST FACILITY DESCRIPTION

Arnold Engineering Development Center's von Karman Facility Tunnel B is a closed-circuit, continuous-flow, hypersonic wind tunnel with a 50-inch diameter test section. Two axisymmetric contoured nozzles provide Mach numbers of 6 or 8, while the tunnel is operated continuously at a selected pressure level from 20 to 300 psia at $M_\infty = 6$, or 50 to 900 psia at $M_\infty = 8$, with air supplied by the VKF main compressor plant. Stagnation tempera - tures sufficient to avoid air liquefaction in the test section (up to 1350°R) are obtained through the use of a natural gas fired combustion heater. The entire tunnel (throat, nozzle, test section, and diffuser) is cooled by integral, external water jackets. The tunnel is equipped with a model injection system, which allows removal of the model from the test section while the tunnel remains in operation. A detailed description of the tunnel may be found in Reference 3.

TEST PROCEDURE

Prior to each test run, the output of the thermocouples to be recorded was monitored to ascertain that the model temperature was approximately $80^{\circ}F$ and all were within $\pm 5^{\circ}F$. The model was then injected at the desired test attitude, taking about 2 seconds to reach the tunnel centerline.

The model remained at this position for about 3 seconds and then was retracted, after which it was cooled again and prepared for a subsequent injection. In order to record the output of all 255 TC's, the model was tested at the same attitude three times consecutively - once for each switch position.

DATA REDUCTION

The reduction of thin-skin thermocouple data normally involves only the calorimetric heat balance, which, in coefficient form is

$$h_o = wbc_p \frac{dT_w/dt}{T_o - T_w} \tag{1}$$

Radiation and conduction loses were neglected in this heat balance, and data reduction simply required evaluation of dT_w/dt from the temperature-time data and determination of model material properties. For the present tests, radiation effects were negligible; however, conduction effects were potentially significant in several regions of the model. To permit identification of these regions and improve evaluation of the data, the following procedure was used.

Separation of variables and integration of Eq. (1), assuming constant w, b, c_p, and T_o, yields

$$\frac{h_o}{wbc_p} (t - t_i) = \ln \frac{T_o - T_{w_i}}{T_o - T_w} \tag{2}$$

Since h_o/wbc_p is a constant, plotting $\ln[(T_o - T_{w_i})/(T_o - T_w)]$ versus time will give a straight line if conduction is negligible. Thus, deviations from a straight line can be interpreted as conduction effects.

The data were evaluated in this manner, and generally a reasonable linear portion of the curve could be found for all thermocouples. A linear least-squares curve fit of $\ln[(T_o - T_{w_i})/(T_o - T_w)]$ versus time was applied to the data beginning at the time when the model reached tunnel centerline and extending for a time span which was a function of the heating rate, as shown below:

Range	Number of Points
$dT_w/dt > 32$	5
$16 < dT_w/dt \leq 32$	7
$8 < dT_w/dt \leq 16$	9
$4 < dT_w/dt \leq 8$	13
$2 < dT_w/dt \leq 4$	17
$1 < dT_w/dt \leq 2$	25
$dT_w/dt \leq 1$	41

In general, the time spans given above were adequate to keep the evaluation of the right-hand side of Eq. (2) within the linear region. Strictly speaking, the value of c_p wasnot constant, as assumed, and the following relation

$$c_p = 0.0797 + (5.556 \times 10^{-5})\, T_w, \text{ (17-4 PH stainless steel)} \quad (3)$$

was used with the computed value of T_w at the mid-point of the curve fit. The maximum variation of c_p over any curve fit was less than 1.5 percent. Thus, the assumption of constant c_p was reasonable. The value of density used for the 17-4 PH stainless steel skin was $w = 490.0$ lbm/ft^3 and the skin thickness (b) for each thermocouple is listed in Table IV.

In addition to computing heat transfer coefficients using T_o as the reference temperature, coefficients were computed using $0.9T_o$ and a T_{aw} as the reference temperature, viz,

$$h(0.9T_o) = h_o \frac{(T_o - T_w)}{(0.9T_o - T_w)} \tag{4}$$

and

$$h(T_{aw}) = h_o \frac{(T_o - T_w)}{(T_{aw} - T_w)} \tag{5}$$

where T_{aw} was computed by the equation

$$T_{aw} = T_o[0.867 + 0.133(\sin(\alpha + \varepsilon))^{1.55}] \tag{6}$$

where

was the model angle of attack and ε was the local model surface deflection angle at the thermocouple. The $h(T_{aw})$ calculation was done only for TC's 273 thru 295 with the ε values for these TC's presented in the following table:

TC	ε, deg	TC	ε, deg
273	75.0	284	20.0
274	68.5	285	18.5
275	54.5	286	16.5
276	42.0	287	14.5
277	38.5	288	7.0
278	34.5	289	4.0
279	30.0	290	2.5
280	28.0	291	1.0
281	26.0	292	
282	24.5	293	
283	22.0	294	
		295	

REFERENCES

1. SD78-SH-0054, "Pretest Information for Tests of the 0.04-Scale Space Shuttle Orbiter Forebody Model 83-Ø in the AEDC VKF Tunnel B, (OH103A)," dated February 1978.

2. Data Package, VKF-AEDC, "NASA/RI 103A Heating Test (Project #V41B-V2)," dated February 1978.

3. Test Facilities Handbook (Tenth Edition), "von Karman Gas Dynamics Facility," Arnold Engineering Development Center, May 1974.

TABLE I

TEST : OH103A

DATE : 2/20/78

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
7.88	1.08×10^6	0.42	719.4
7.93	1.83×10^6	0.79	767.4
7.97	3.46×10^6	1.58	818.4

BALANCE UTILIZED: N/A

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF			
SF			
AF			
PM			
RM			
YM			

COMMENTS:

TABLE II

JEV

TEST : ΦH-103A (AEDC V41B-V2) | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE : 2/22/78

DATA SET IDENTIFIER	CONFIGURATION	α	β	REYNOLDS NUMBER	.50 x 10⁶			.875 x 10⁶			1.60 x 10⁶		
				SWITCH POSITION	1	2	3	1	2	3	1	2	3
R4H(*)01	.04 SCALE FOREBODY	25	0		20	21	45	46	47	48	1	2	71
02	MODEL 83-Φ	25					22+				4		3+
03	RCS NOZZLES OPEN	30			23	24	44	49	50	51	5	6	72
04		30					25+						7+
05		35			26	27	28	52	53	54	8	9	73
06		35			38	39	40	65					10+
07		37.5			29	30	31	56	57	58	11	12	13+
08		37.5			41	42	43						
09		40			32	33	34	59	60	61	14	15	16+
10		42.5			35+	36+	37+	62+	63+	64+	17	18	19+
11		42.5			68	69	70	66		67	74		

TEST RUN NUMBERS

(*) See appendix for component descriptions

α OR β SCHEDULES

+ DATA QUESTIONABLE - USE WITH CAUTION

TABLE III

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B_{60}

GENERAL DESCRIPTION : 50% orbiter forebody, vehicle 140C.

NOTE: This body includes a small portion of the wing glove.

MODEL SCALE: 0.040

DRAWING NUMBER : VL70-000140C

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	645.15	25.80
Max Width	330.00	13.20
Max Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III (Concluded)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C_{10}

GENERAL DESCRIPTION : Configuration 4 canopy and windshield as used with B_{25}, six glass panes in windshield.

MODEL SCALE: 0.040

DRAWING NUMBER : VL70-000140B, 140C, 202B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X_o =434.643 to 670), In.	235.357	9.414
Max Width		
Max Depth (Glass, In.	28.00	1.12
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		
Nose/windshield intersection, X_o =	434.643	17.386

TABLE IV. MODEL THERMOCOUPLE LOCATIONS

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	Z_o = 338 NOSE T/C's (EVERY 0.2")							
145		338.0	236.0	0.0008			0.0300	
146			238.0	0.0023			0.0306	
147			240.5	0.0043			0.0300	
148			243.75	0.0068			0.0310	
149			247.25	0.0095			0.0322	
150			250.75	0.0122			0.0319	
151			263.25	0.0218			0.0313	
152			267.5	0.0251			0.0302	
153			272.0	0.0286			0.0272	
155			276.25	0.0319			0.0277	
156			280.75	0.0354			0.0280	
157			285.0	0.0387			0.0277	

TABLE IV. MODEL THERMOCOUPLE LOCATIONS (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	Z_o = 338 NOSE T/C'S (EVERY 0.2")							
158	↓	338.0	289.25	0.0420			0.0274	
159		338.0	294.75	0.0462			0.0274	
160		338.0	300.0	0.0503			0.0250	
	UPPER RCS NOZZLES							
161		-7.5	315.0	0.0619			0.0265	
162		-7.5	326.7	0.0709			0.0212	
163		-7.5	339.3	0.0807			0.0275	
164		-7.5	357.0	0.0943			0.0292	
165		-7.5	361.5	0.0978			0.0282	
166		-7.5	366.0	0.1013			0.0287	
167		-15.0	315.0	0.0619			0.0303	
168		-15.0	326.7	0.0709			0.0235	
169		-15.0	339.3	0.0807			0.0272	
170		-15.0	357.0	0.0943			0.0280	
171		-15.0	361.5	0.0978			0.0270	
172		-15.0	366.0	0.1013			0.0292	
173		-22.5	339.3	0.0807			0.0299	
174		-22.5	357.0	0.0943			0.0255	
175		-22.5	361.5	0.0978			0.0321	
176	↓	-22.5	366.0	0.1013			0.0305	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	Lower Centerline							
273				.0010			.0269	
274				.0018			.0272	
275				.0041			.0277	
276				.0070			.0280	
277				.0103			.0279	
278				.0151			.0283	
279				.0199			.0232	
280				.0232			.0210	
281				.0263			.0190	
282				.0299			.0230	
283				.0338			.0231	
284				.0381			.0230	
285				.0414			.0230	
286				.0452			.0240	
287				.0503			.0230	
288				.1000			.0300	
289				.1500			.0260	
290				.2000			.0273	
291				.2500			.0275	
292				.3000			.0261	
293				.3500			.0276	
294				.4000			.0292	
295				.4500				

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	MHB ↓							
296				.0245			.0292	
297				.0500			.0268	
298				.0745			.0270	
299				.0998			.0278	
300				.1125			.0252	
301				.1150			.0280	
302				.1175				
303				.1997			.0280	
304				.2253			.0205	
305				.2497			.0283	
307				.2750			.0245	
308				.3248			.0290	
309				.3758			.0298	
310				.4259			.0272	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	WL ↓							
311				.1996			.0230	
312				.2247			.0250	
313				.2495			.0296	
314				.2745			.0279	
315				.2996			.0308	
316				.3249			.0279	
317				.3498			.0311	
318				.3746			.0302	
319				.4039			.0278	
320				.4248				
322				.4751			.0260	
323				.2000			.0259	
324				.2250			.0268	
325				.2500				
326				.2750			.0261	
327				.3000			.0286	
328				.3250			.0249	
329				.3500			.0306	
330				.3750			.0282	
331				.4000			.0269	
332				.4250			.0276	
333				.4500			.0273	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	WL							
334	↓			.2246			.0255	
335				.2496			.0289	
336				.2748			.0262	
337				.2997			.0308	
338				.3251			.0269	
339				.3498			.0302	
341				.4034			.0279	
343				.4495			.0276	
	CCL							
351	↓			.0500			.0271	
352				.0750			.0269	
353				.0966				
354				.1250			.0268	
355				.1500			.0273	
356				.1750			.0311	
357				.2000			.0262	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	TOP CENTERLINE							
367	↓		235.000	0.000			0.0263	
368			236.000	0.0008			0.0284	
369			237.500	0.0019			0.0262	
370			239.750	0.0037			0.0273	
371			242.500	0.0058			0.0219	
372			246.250	0.0087			0.0268	
373			250.250	0.0118			0.0293	
374			254.50	0.0151			0.0293	
375			258.50	0.0182			0.0306	
376			262.75	0.0215			0.0215	
377			266.75	0.0246			0.0261	
378			271.00	0.0278			0.0261	
379			313.75	0.0609			0.0275	
380			318.50	0.0646			0.023	
381			323.50	0.0684			0.029	
382			328.25	0.0721			0.0293	
383			333.25	0.0760			0.030	
384			338.00	0.0796			0.0312	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/l	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
	TOP CENTERLINE							
385			357.00	0.0789			0.0288	
386			357.00	0.0789			0.0265	
387			366.75	0.1019			0.0275	
388			385.00	0.1160			0.0213	
389			389.50	0.1195			0.0325	
390			394.25	0.1231			0.0353	
391			399.00	0.1268			0.0357	
392			403.75	0.1305			0.0384	
393			408.00	0.1338			0.0379	
394			413.00	0.1376			0.0376	
395			417.50	0.1411			0.0335	
396			422.25	0.1448			0.0332	
397			426.75	0.1483			0.0332	
398			431.50	0.1519			0.0315	
399			436.25	0.1556			0.0299	
400			439.63	0.1582			0.0302	
401			443.00	0.1608			0.0290	
402			446.50	0.1635			0.0279	
403			450.25	0.1664			0.0272	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
426	PILOT RIGHT (Cross Section)		270	.027		350	0.0206	
427						343	0.0219	
428						335	0.0239	
429						324	0.0259	
430						320	0.0279	
431						310	0.0285	
433						295	0.0288	
434						287.5	0.0292	
435						280	0.0293	
436						273	0.0295	
437			300	.050		352.5	0.025	
439						339	0.0249	
440						334	0.024	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
441	PILOT RIGHT (Cross		300	.050		327.5	0.024	
442	Section)		↓	↓		321.5	0.028	
443	↓					318	0.0283	
444						311	0.0270	
445						306	0.026	
446						300	0.0245	
447						295	0.0225	
448						289	0.0278	
449						284	0.0258	
450			↓	↓		274	0.0190	
453			500	.2049		346	0.023	
454			↓	↓		342	0.023	
455						338	0.023	
456						333	0.023	
457						330	0.023	
458						326	0.024	
460						320	0.026	
461						317	0.027	
462						313.5	0.027	
463						310.5	0.026	
464						307	0.025	
465						305	0.0263	
466						303	0.027	
467			↓	↓		300.5	0.0265	
468	↓					298	0.025	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	r (INCHES)	θ (DEGREES)	SKIN THICKNESS (INCHES)	
469	PILOT RIGHT (Cross Section)		500	.2049		295	0.028	
470	↓		↓	↓		292	0.023	
471						290	0.023	
472						287	0.021	
473						284	0.0275	
474						278	0.023	
475						275.5	0.023	
476						273	0.024	
477						270	0.0253	
501			260.75	.0200		348.5	0.022	
502			↓	↓		338.2	0.021	
503						328.7	0.025	
504						320.5	0.028	
505						312.3	0.027	
506						303.5	0.025	
507						296.5	0.021	
508						287	0.019	
509						278.6	0.023	
510						270.0	0.023	
511						262	0.026	

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	$\frac{L}{L_N}$	θ (DEGREES)	SKIN THICKNESS (INCHES)	REMARKS
	Downward Firing Nozzles							
	Fuselage Side - Forward Nozzle							
817					--	--	0.0260	0.2 IN.
818					3.12	270	0.0300	FWD OF
819					2.56	270	0.0360	0 DEG.
820					1.56	180	0.0300	REF ON
821					2.13	180	0.0300	NOZZLE
	Fuselage Side - Aft Nozzle							
822					--	--	0.0270	BETWEEN
823					3.32	270	0.0400	DOWN
824					2.76	↓	0.0410	FIRING
825					2.19	↓	0.0380	NOZZLE
826					1.62	↓	0.0370	
827					1.05	↓	0.0240	
828					0.48	270	0.0230	
829					0.85	90	0.0230	
830					1.28	180	0.0230	
831					1.99	180	0.0300	
832					2.42	180	0.0300	
833					2.42	0	0.0310	
	Side Firing Nozzles							
	Fuselage Side - Lower Nozzle							
834					1.19	270	0.0280	
835					0.57	0	0.0280	
836					1.14	90	0.0280	
837					1.19	180	0.0280	
838					1.19	180	0.0280	

L_N = LENGTH FROM NOZZLE THROAT TO A/A* = 22 (8.8 IN. F.S.)

TABLE IV. (Continued)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	$\frac{L}{LN}$	θ (DEGREES)	SKIN THICKNESS (INCHES)	REMARKS
	Side Firing Nozzles							
	Fuselage Side - Upper Nozzle				1.25	270	0.0295	
839	↓				1.14	180	0.0300	
840					1.14	0	↓	
841					0.57	180		
842					0.94	90		
843					--	--	0.0300	
844					--	--	0.0320	
845								
	Center Forward Firing Nozzle							
854	↓				4.83	270	0.0310	
853					4.40	↓	0.0260	
852					4.00		0.0270	
851					3.55		0.0280	
850					3.13		0.0280	
871					1.99		0.0303	
870					0.48		0.0351	
869					0.00	270	0.0323	(CENTER)
868					0.51	90	0.0304	
867					1.14	90	0.0306	
855					2.13	0	0.0305	
856					1.70	0	0.0306	

L_N = LENGTH FROM NOZZLE THROAT TO A/A* = 22 (8.8 IN. F.S.)

TABLE IV. (Concluded)

T/C NO.	LOCATION	Z_o (INCHES)	X_o (INCHES)	X/ℓ	$\frac{L}{L_N}$	θ (DEGREES)	SKIN THICKNESS (INCHES)	REMARKS
	Left Forward Firing Nozzle							
857					4.69	270	0.0305	
858					2.41	270	0.0331	
859					2.70	0	0.0295	
860					2.13	0	0.0291	
861					0.0	0	0.0343	(CENTER)
862					0.85	90	0.0125	
	Left Upward Firing Nozzle							
863					0.20	0	0.0354	
864					0.26	90	0.0332	
865					0.48	180	0.0365	
866					0.00	0	0.0294	(CENTER)
	Center Upward Firing Nozzle							
872					0.07	0	0.0384	
873					0.09	90	0.0403	
874					0.17	180	0.0532	
875					0.00	0	0.0305	(CENTER)

L_N = LENGTH FROM NOZZLE THROAT TO A/A* = 22 (8.8 IN. F.S.)

TABLE V. THERMOCOUPLE HOOK-UP KEY

Test No: OH-103A
Constant Set: 1
Material: Chrom/Const
Switch Position: 1

channel number	T/C	skin thick-ness		channel number	T/C	skin thick-ness		channel number	T/C	skin thick-ness	
1	273	.0269		34	511	.0260		67	463	.0260	
2	274	.0272		35	426	.0206		68	464	.0250	
3	275	.0277		36	427	.0219		69	465	.0263	
4	276	.0280		37	428	.0237		70	466	.0270	
5	277	.0279		38	429	.0259		71	467	.0265	
6	278	.0283		39	430	.0279		72	468	.0250	
7	279	.0232		40	431	.0285		73	469	.0280	
8	280	.0210		41	433	.0286		74	470	.0230	
9	281	.0190		42	434	.0292		75	471	.0230	
10	282	.0230		43	435	.0293		76	472	.0210	
11	283	.0231		44	436	.0295		77	473	.0275	
12	284	.0230		45	437	.0250		78	474	.0230	
13	285	.0230		46	~~439~~ ~~.0249~~		NG	79	475	.0230	
14	286	.0240		47	440	.0240		80	476	.0240	
15	287	.0230		48	441	.0240		81	477	.0253	
16	~~288~~ ~~.0260~~		NG	49	~~442~~ ~~.0280~~		NG	82	145	.0300	
17	289	.0300		50	~~443~~ ~~.0283~~		NG	83	146	.0306	
18	290	.0260		51	444	.0270		84	147	.0300	
19	291	.0273		52	445	.0260		85	148	.0310	
20	292	.0275		53	446	.0245		86	149	.0322	
21	293	.0261		54	447	.0225		87	150	.0319	
22	294	.0276		55	448	.0278		88	151	.0313	
23	295	.0292		56	449	.0258		89	152	.0302	
24	501	.0220		57	450	.0198		90	153	.0272	
25	502	.0210		58	453	.0230		91	155	.0280	
26	503	.0250		59	454			92	156	.0277	
27	504	.0280		60	455			93	157	.0274	
28	505	.0270		61	456			94	158	.0274	
29	506	.0250		62	457	.0232		95	159	.0250	
30	507	.0210		63	458	.0240		96	160	.0235	
31	508	.0190		64	460	.0260		97	—		
32	509	.0230		65	461	.0270					
33	510	.0230		66	462	.0270					

TABLE V. (Continued)

Test No: OH-103A
Constant Set: E
Material: Chrom/Const
Switch Position: 2

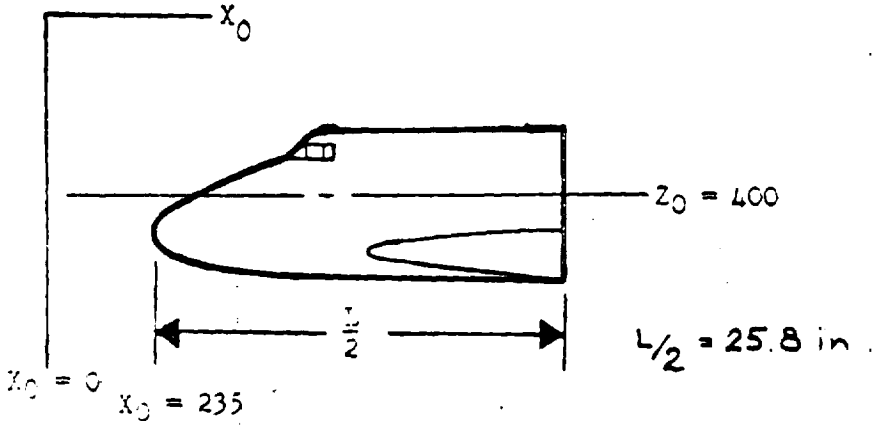
channel number	T/C	skin thick-ness		channel number	T/C	skin thick-ness		channel number	T/C	skin thick-ness	
1	367	.0263		34	400	.0302		67	327	.0286	
2	368	.0284		35	401	.0290		68	328	.0249	
3	369	.0262		36	402	.0279		69	329	.0306	
4	370	.0273		37	403	.0272		70	330	.0282	
5	~~371 .0279~~		NG	38	296	.0292		71	331	.0269	
6	372	.0268		39	297	.0268		72	332	.0276	
7	373	.0293		40	298	.0270		73	333	.0273	
8	374	.0293		41	299	.0278		74	334	.0255	
9	375	.0306		42	300	.0252		75	335	.0289	
10	376	.0295		43	301	.0280		76	336	.0262	
11	377	.0288		44	~~302 .0306~~		NG	77	337	.0308	
12	378	.0261		45	303	.0280		78	338	.0269	
13	379	.0275		46	304	.0205		79	339	.0302	
14	380	.0230		47	305	.0283		80	341	.0279	
15	381	.0290		48	307	.0245		81	343	.0276	
16	382	.0293		49	308	.0290		82	351	.0271	
17	~~383 .0300~~		NG	50	309	.0298		83	352	.0269	
18	384	.0312		51	~~310 .0278~~		NG*	84	~~353 .0263~~		NG
19	385	.0288		52	311	.0230		85	354	.0268	
20	386	.0265		53	312	.0250		86	355	.0273	
21	387	.0275		54	313	.0296		87	356	.0311	
22	388	.0213		55	314	.0279		88	357	.0262	
23	389	.0325		56	315	.0308		89			
24	~~390 .0353~~		NG*	57	316	.0279		90			
25	391	.0357		58	317	.0311		91			
26	392	.0384		59	318	.0302		92			
27	393	.0379		60	319	.0278		93			
28	394	.0376		61	~~320 .0285~~		NG	94			
29	395	.0335		62	321	.0260		95			
30	396	.0332		63	323	.0259		96			
31	397	.0332		64	324	.0268		97			
32	398	.0315		65	~~325 .0279~~		NG				
33	399	.0299		66	326	.0261					

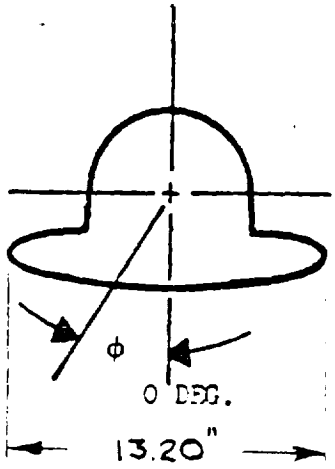
* DETERMINED TO BE NG DURING RUNNING

TABLE V. (Concluded)

Test No: OH-103A
Constant Set: 3
Material: Chrom/Const
Switch Position: 3

channel number	T/C	skin thick-ness		channel number	T/C	skin thick-ness		channel number	T/C	skin thick-ness	
1	854	0.031		34	865	00365		67	841	0.030	
2	853	0.026		35	866	0.0294		68	~~842~~	~~0.030~~	NG
3	852	0.027		36	170	0.0280		69	843	0.030	
4	851	0.028		37	171	0.0270		70.	844	0.030	
5	850	0.028		38	172	0.0292		71	845	0.032	
6	871	0.0303		39	173	0.0298		72			
7	870	0.0351		40	174	0.0255		73			
8	869	0.0323		41	175	0.0321		74			
9	868	0.0304		42	176	0.0305		75			
10	867	0.0306		43	817	0.0268		76			
11	855	0.0305		44	818	0.030		77			
12	856	0.0306		45	819	0.036		78			
13	872	0.0384		46	820	0.030		79			
14	873	0.0403		47	821	0.030		80			
15	874	0.0532		48	822	0.027		81			
16	875	0.0305		49	~~823~~	~~0.040~~	NG	82			
17	161	0.0265		50	~~824~~	~~0.041~~	NG	83			
18	162	0.0212		51	825	0.038		84			
19	163	0.0275		52	826	0.037		85			
20	164	0.0292		53	827	0.024		86			
21	165	0.0282		54	828	0.023		87			
22	166	0.0287		55	829	0.023		88			
23	857	0.0305		56	830	0.023		89			
24	858	0.0331		57	831	0.030		90			
25	859	0.0295		58	832	0.030		91			
26	860	0.0291		59	833	0.031		92			
27	861	0.0343		60	834	0.028		93			
28	862	0.0125		61	835	0.028		94			
29	167	0.0303		62	836	0.0285		95			
30	168	0.0235		63	837	0.028		96			
31	169	0.0272		64	838	0.028		97			
32	863	0.0354		65	839	0.0295					
33	864	0.0332		66	840	0.030					





VIEW LOOKING FORWARD

Figure 1. 83-Ø Axis System and General Arrangements

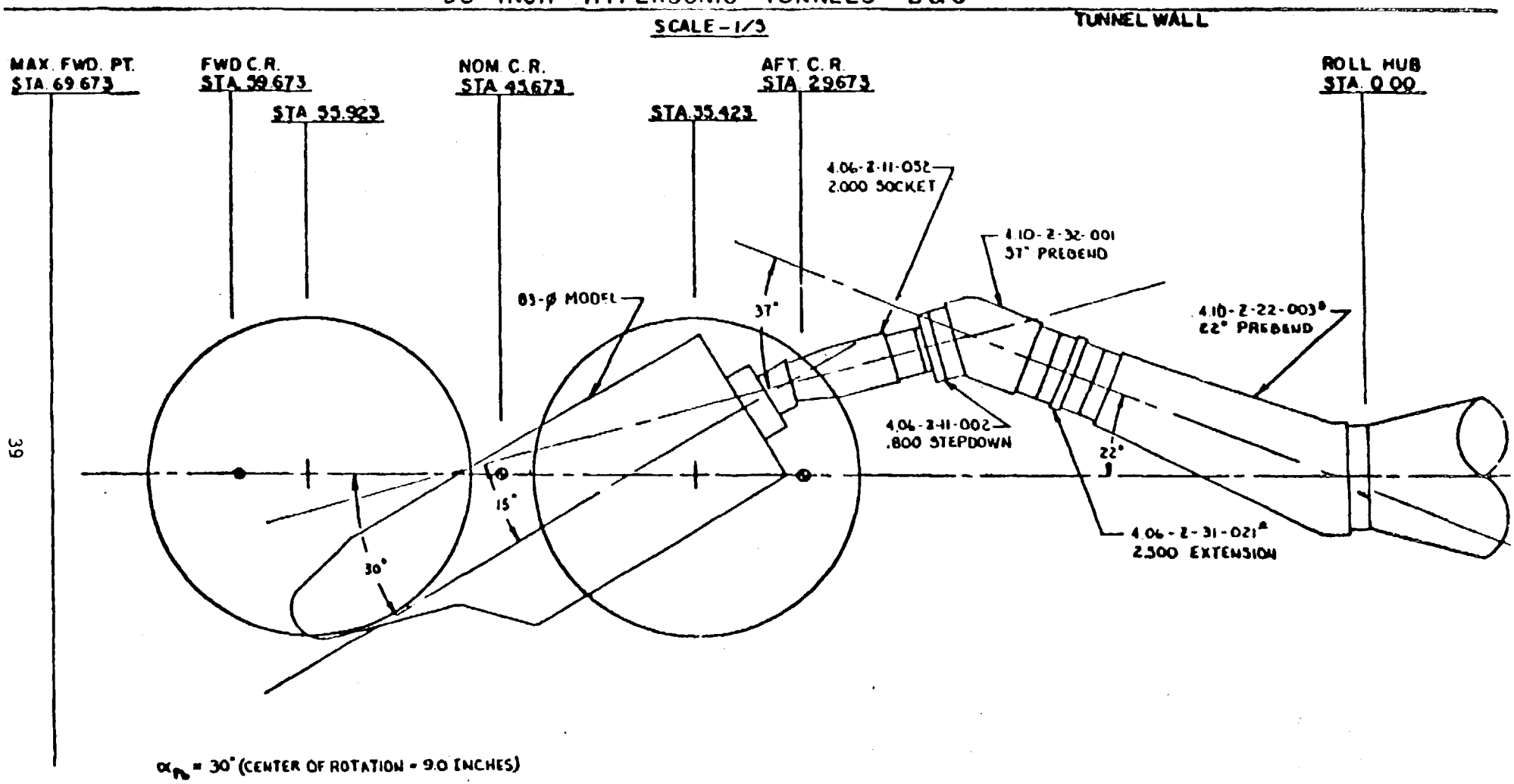


Figure 2. 83-Ø Installation Diagram

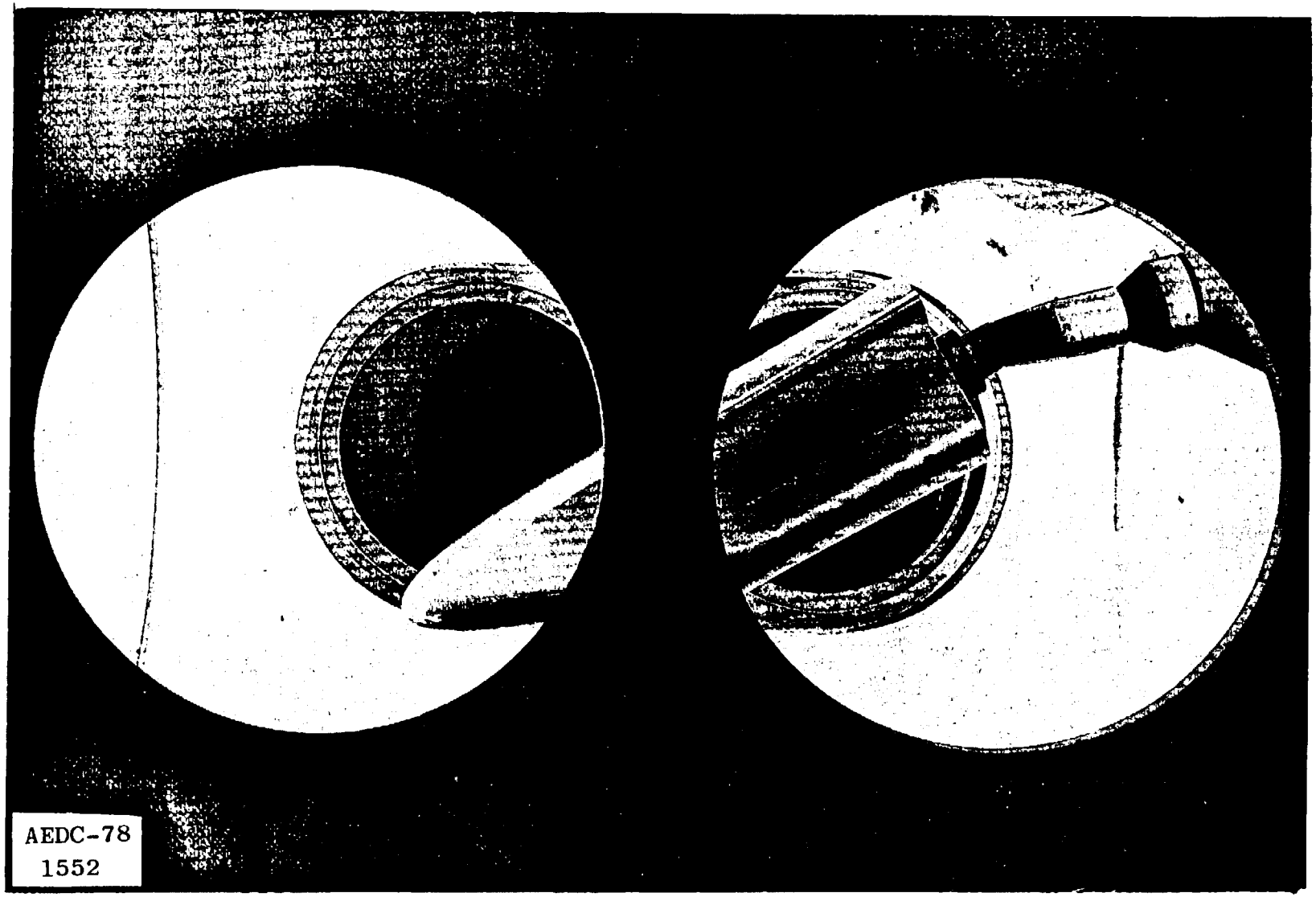
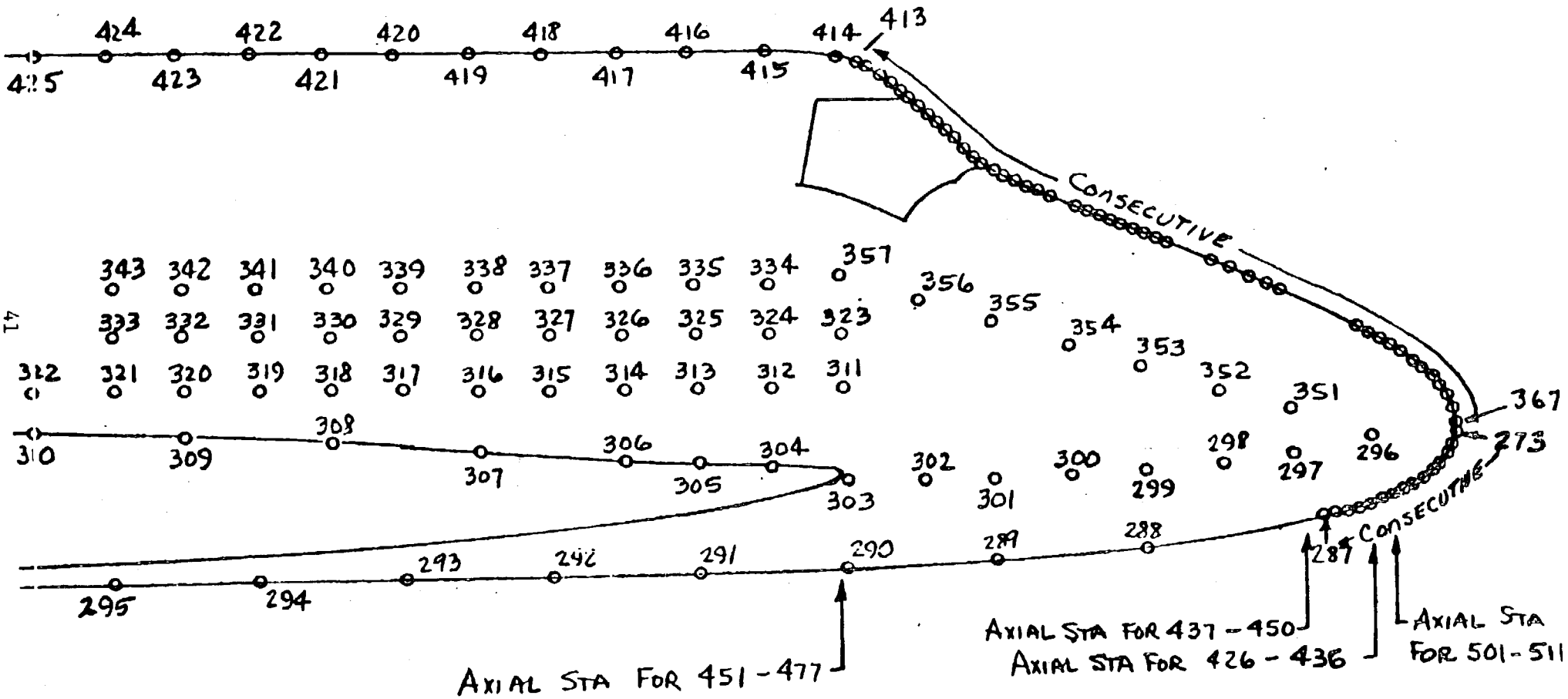
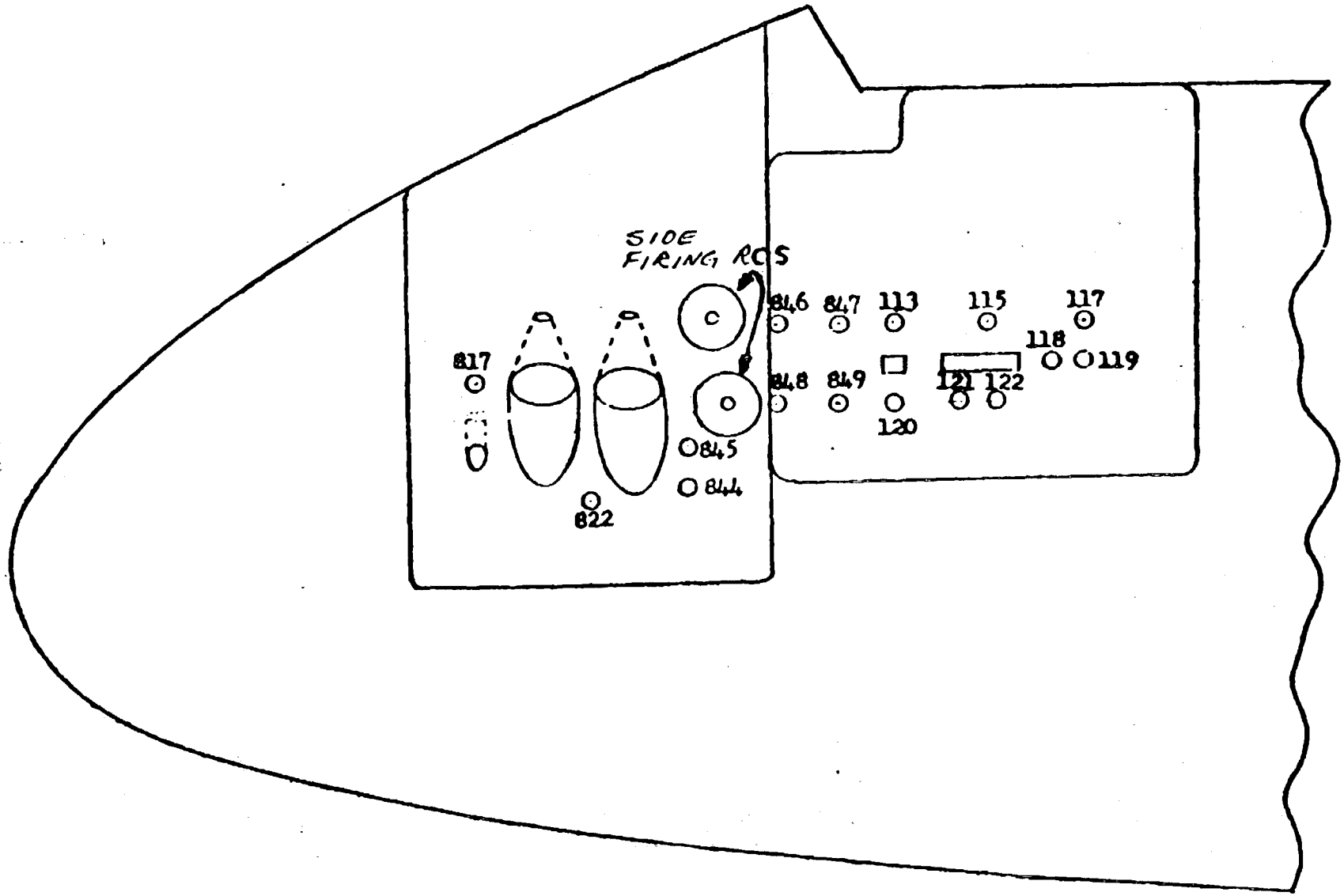


Fig. 3 Model Shown in Tunnel B at 30-Deg Angle-of-Attack



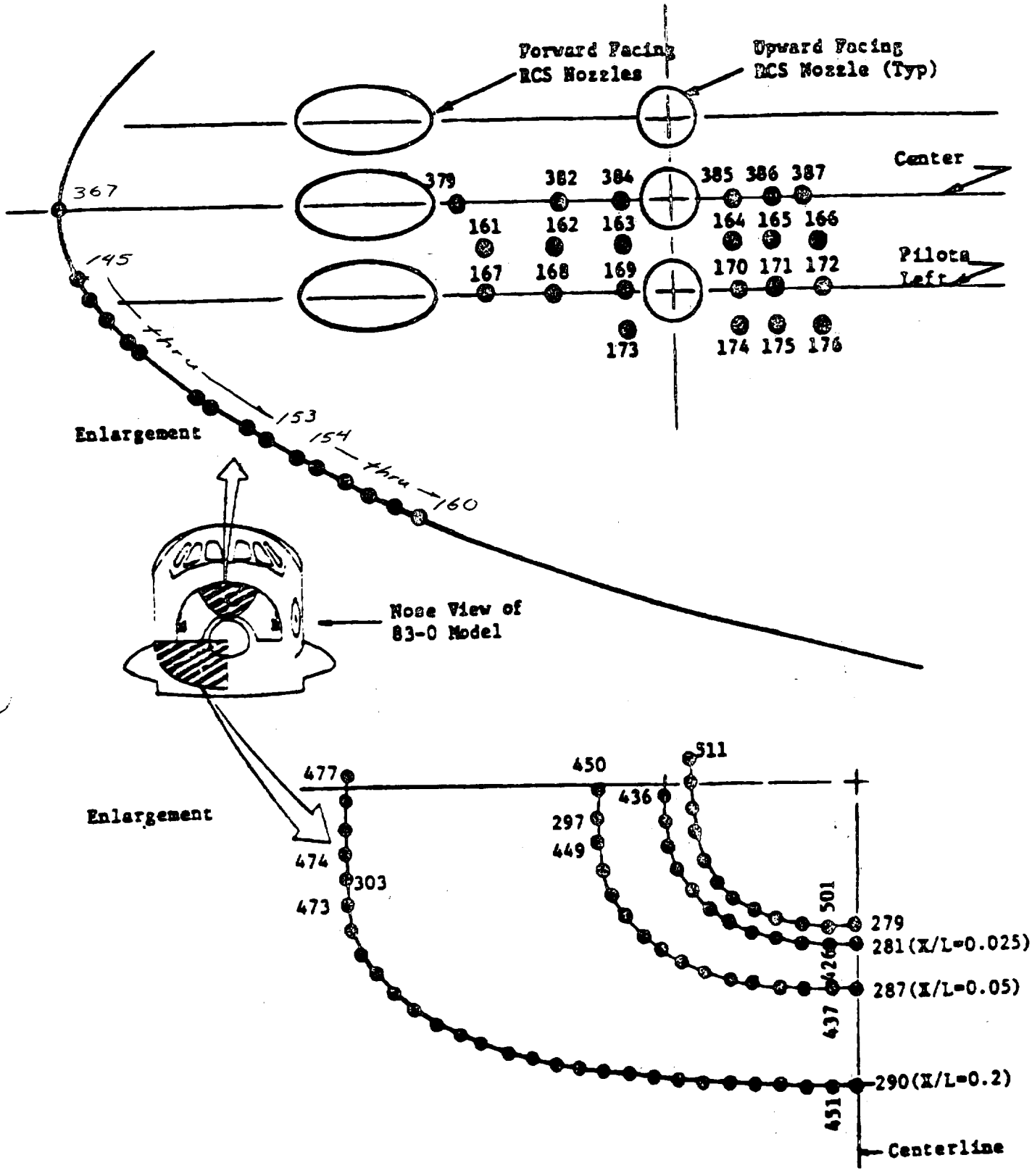
a. Right Side Fuselage

Figure 4. Thermocouple Locations on the 83-Ø Model



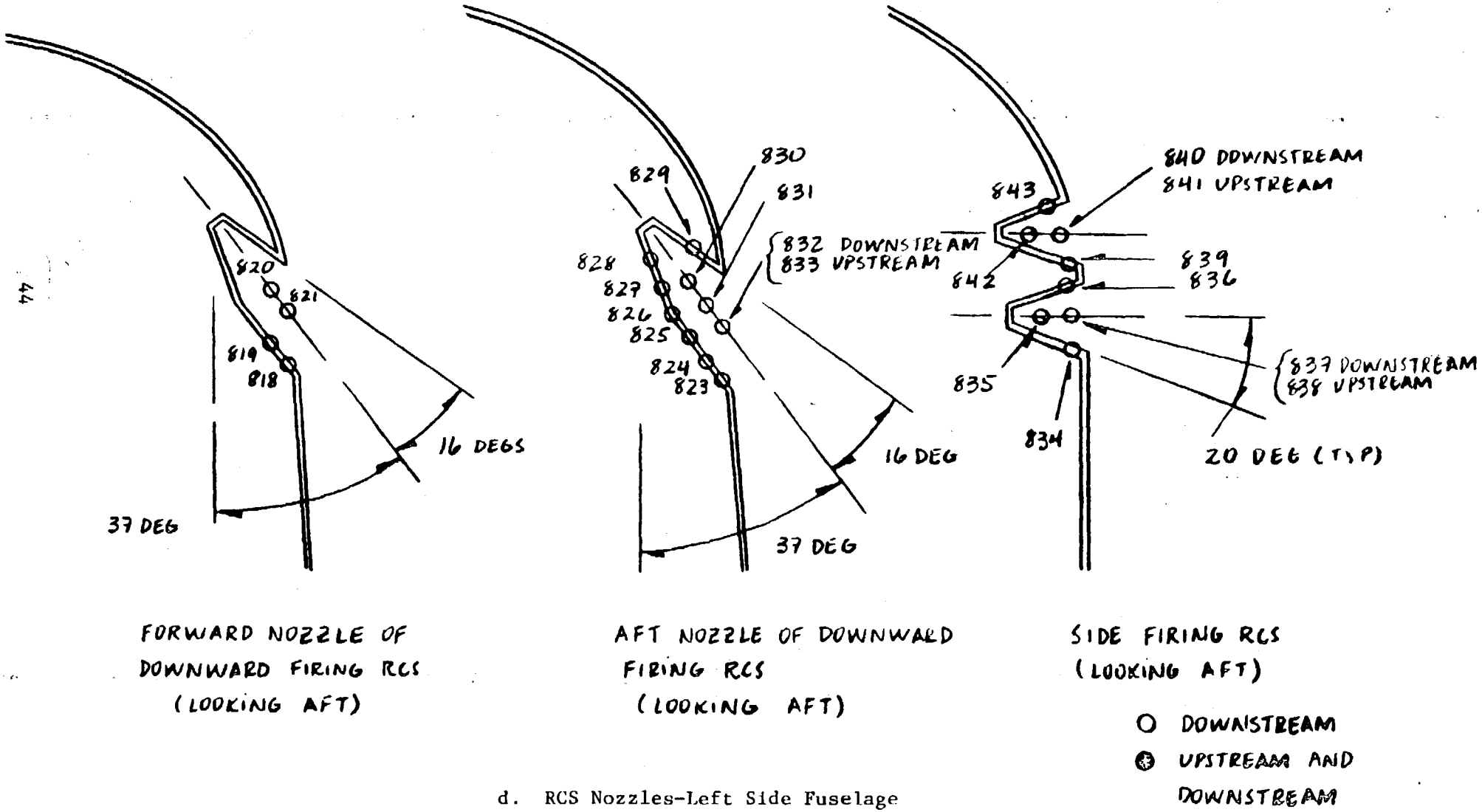
b. Left Side Fuselage

Figure 4. (Continued)



c. Upper and Lower Fuselage

Figure 4. (Continued)



d. RCS Nozzles-Left Side Fuselage

Figure 4. (Continued)

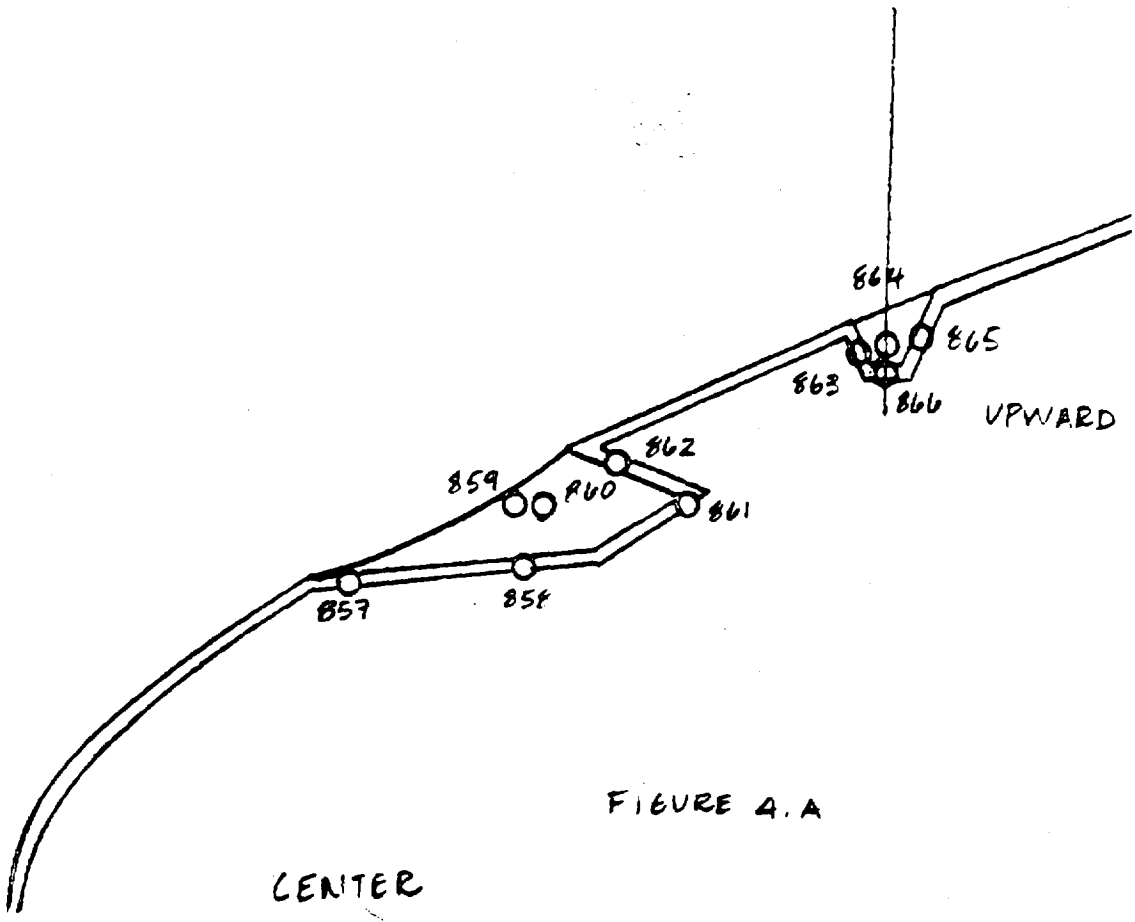
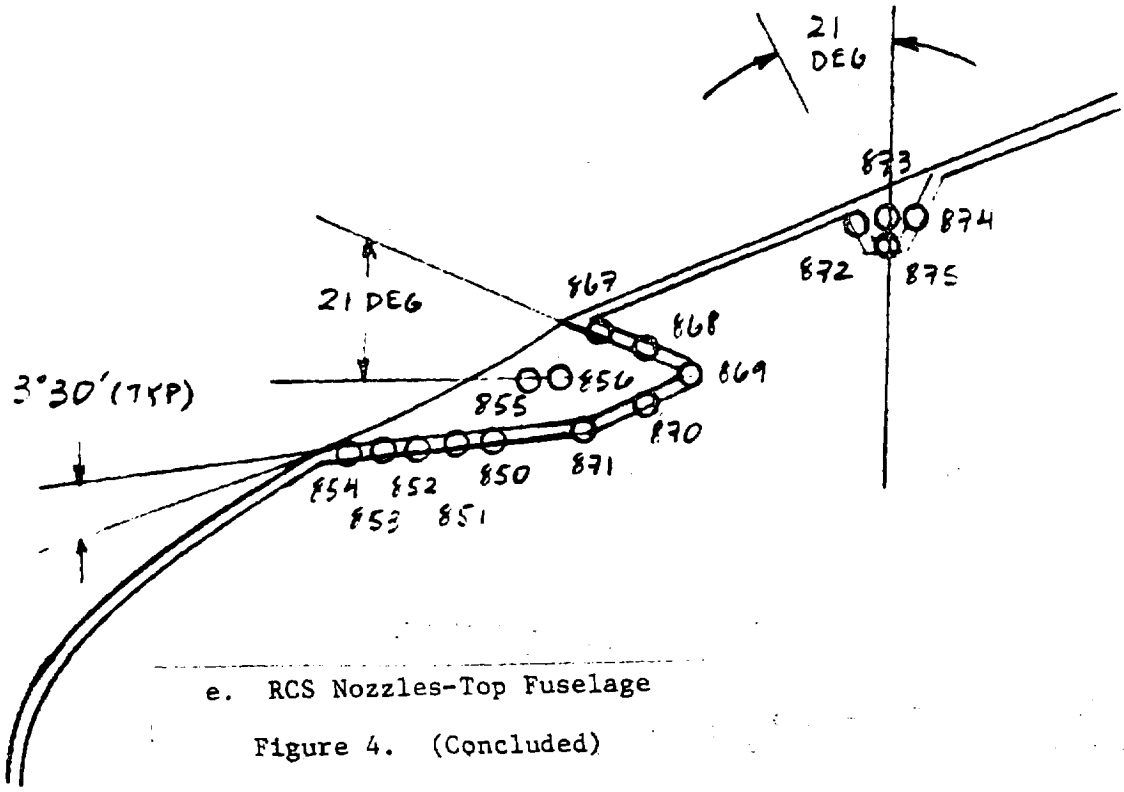


FIGURE 4.A



e. RCS Nozzles-Top Fuselage

Figure 4. (Concluded)

Appendix

Tabulated Source Data

Datasets	Component	Pages
R4HA$$	Orbiter fuselage, longitudinal distribution	1- 96
R4HB$$	Orbiter fuselage, cross sectional distribution	97-146
R4HC$$	Top fuselage centerline, forward firing nozzle	147-173
R4HD$$	Top fuselage centerline, top firing nozzle	174-200
R4HE$$	Top left, forward firing nozzle	201-227
R4HF$$	Top left, upward firing nozzle	228-252
R4HG$$	Fuselage side, forward nozzle, downward firing	253-279
R4HH$$	Fuselage side, aft nozzle, downward firing	280-306
R4HI$$	Fuselage side, lower nozzle, side firing	307-333
R4HJ$$	Fuselage side, upper nozzle, side firing	334-360

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
20	7.880	24.99	86.58	1177.	87.70	.9780-02	.4250	3617.	.3011-03	.7056-07	.4800	.1045-01
21	7.880	24.99	85.37	1185.	88.30	.9640-02	.4190	3630.	.2949-03	.7104-07	.4680	.1039-01
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
20	.3887-01
21	.3930-01
45	.3906-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
21	1.0000	.00000	367.00	.5670	.6990	.0000	.5893-02	.7259-02	.0000	3.710	31.25	555.2
21	1.0000	.80000-03	368.00	.4230	.5190	.0000	.4391-02	.5389-02	.0000	2.809	22.02	545.0
21	1.0000	.19000-02	369.00	.2410	.2950	.0000	.2503-02	.3065-02	.0000	1.617	13.79	538.5
21	1.0000	.37000-02	370.00	.1680	.2050	.0000	.1746-02	.2134-02	.0000	1.140	9.360	532.1
21	1.0000	.87000-02	372.00	.9000-01	.1090	.0000	.9301-03	.1135-02	.0000	.6100	5.110	[illegible].7
21	1.0000	.11800-01	373.00	.6700-01	.8100-01	.0000	.6920-03	.8439-03	.0000	.4550	3.490	[illegible]6.8
21	1.0000	.15100-01	374.00	.5100-01	.6200-01	.0000	.5312-03	.6477-03	.0000	.3500	2.680	5[illegible]6.3
21	1.0000	.18200-01	375.00	.4400-01	.5300-01	.0000	.4539-03	.5532-03	.0000	.2990	2.200	525.2
21	1.0000	.21500-01	376.00	.3400-01	.4100-01	.0000	.3536-03	.4310-03	.0000	.2330	1.780	524.9
21	1.0000	.24600-01	377.00	.3500-01	.4300-01	.0000	.3668-03	.4471-03	.0000	.2420	1.890	524.6
21	1.0000	.27800-01	378.00	.2700-01	.3300-01	.0000	.2787-03	.3397-03	.0000	.1840	1.590	524.8
21	1.0000	.60900-01	379.00	.2200-01	.2700-01	.0000	.2290-03	.2791-03	.0000	.1510	1.240	524.1
21	1.0000	.64600-01	380.00	.1500-01	.1900-01	.0000	.1586-03	.1932-03	.0000	.1050	1.030	523.5
21	1.0000	.68400-01	381.00	.1700-01	.2000-01	.0000	.1724-03	.2101-03	.0000	.1140	.8900	523.4
21	1.0000	.72100-01	382.00	.1400-01	.1700-01	.0000	.1471-03	.1792-03	.0000	.9700-01	.7500	523.2
21	1.0000	.79100-01	384.00	.1300-01	.1600-01	.0000	.1395-03	.1699-03	.0000	.9200-01	.6700	522.7
21	1.0000	.94300-01	385.00	.1000-01	.1200-01	.0000	.1035-03	.1261-03	.0000	.6900-01	.5400	522.3
21	1.0000	.97800-01	386.00	.9000-02	.1100-01	.0000	.9772-04	.1190-03	.0000	.6500-01	.5500	522.0

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
21	1.0000	.10190	387.00	.9000-02	.1100-01	.0000	.9690-04	.1180-03	.0000	.6400-01	.5300	522.3
21	1.0000	.11600	388.00	.8000-02	.1000-01	.0000	.8192-04	.9976-04	.0000	.5400-01	.5700	522.5
21	1.0000	.11950	389.00	.1000-01	.1200-01	.0000	.1054-03	.1283-03	.0000	.7000-01	.4800	522.2
21	1.0000	.12680	391.00	.9000-02	.1100-01	.0000	.9175-04	.1117-03	.0000	.6100-01	.3800	522.0
21	1.0000	.13050	392.00	.8000-02	.1000-01	.0000	.8741-04	.1064-03	.0000	.5800-01	.3400	521.5
21	1.0000	.13380	393.00	.8000-02	.1000-01	.0000	.8310-04	.1012-03	.0000	.5500-01	.3300	523.3
21	1.0000	.13760	394.00	.5000-02	.6000-02	.0000	.5428-04	.6609-04	.0000	.3600-01	.2200	521.6
21	1.0000	.14110	395.00	.6000-02	.8000-02	.0000	.6498-04	.7911-04	.0000	.4300-01	.2900	521.5
21	1.0000	.14480	396.00	.6000-02	.7000-02	.0000	.6004-04	.7309-04	.0000	.4000-01	.2700	521.6
21	1.0000	.14830	397.00	.6000-02	.7000-02	.0000	.6346-04	.7726-04	.0000	.4200-01	.2900	521.6
21	1.0000	.15190	398.00	.7000-02	.9000-02	.0000	.7597-04	.9250-04	.0000	.5000-01	.3600	521.8
21	1.0000	.15560	399.00	.1000-01	.1200-01	.0000	.1047-03	.1275-03	.0000	.6900-01	.5200	522.0
21	1.0000	.15820	400.00	.2100-01	.2600-01	.0000	.2178-03	.2653-03	.0000	.1440	1.070	523.7
21	1.0000	.16080	401.00	.1400-01	.1700-01	.0000	.1439-03	.1754-03	.0000	.9500-01	.7400	525.0
21	1.0000	.16350	402.00	.2900-01	.3600-01	.0000	.3057-03	.3728-03	.0000	.2010	1.620	526.3
21	1.0000	.16640	403.00	.3400-01	.4100-01	.0000	.3487-03	.4250-03	.0000	.2300	1.900	525.3
21	2.0000	.00000	367.00	.5670	.6990	.0000	.5893-02	.7259-02	.0000	3.710	31.25	555.2
20	2.0000	.10000-02	273.00	.6540	.8060	.6580	.6842-02	.8428-02	.6882-02	4.277	35.29	551.5
20	2.0000	.18000-02	274.00	.5980	.7370	.5990	.6254-02	.7703-02	.6258-02	3.912	31.93	551.1
20	2.0000	.41000-02	275.00	.5540	.6820	.5570	.5788-02	.7126-02	.5826-02	3.629	29.10	549.7
20	2.0000	.70000-02	276.00	.5090	.6260	.5250	.5320-02	.6540-02	.5484-02	3.357	26.68	545.7
20	2.0000	.10300-01	277.00	.4580	.5630	.4770	.4790-02	.5885-02	.4985-02	3.029	24.18	544.3
20	2.0000	.15100-01	278.00	.4670	.5730	.4920	.4882-02	.5991-02	.5143-02	3.101	24.45	541.4
20	2.0000	.19900-01	279.00	.2780	.3410	.2980	.2908-02	.3565-02	.3111-02	1.856	17.87	538.5
20	2.0000	.23200-01	280.00	.9500-01	.1160	.1020	.9918-03	.1212-02	.1068-02	.6410	6.850	530.2
20	2.0000	.26300-01	281.00	.2440	.2990	.2650	.2547-02	.3123-02	.2766-02	1.624	19.09	539.0
20	2.0000	.29900-01	282.00	.2400	.2950	.2630	.2514-02	.3082-02	.2747-02	1.606	15.60	537.9
20	2.0000	.33800-01	283.00	.2110	.2590	.2330	.2210-02	.2706-02	.2439-02	1.418	13.73	535.2
20	2.0000	.38100-01	284.00	.1930	.2360	.2150	.2016-02	.2467-02	.2243-02	1.296	12.61	533.9
20	2.0000	.41400-01	285.00	.1790	.2190	.2010	.1874-02	.2294-02	.2098-02	1.205	11.73	533.6
20	2.0000	.45200-01	286.00	.1740	.2130	.1960	.1817-02	.2223-02	.2052-02	1.172	10.95	531.7
20	2.0000	.50300-01	287.00	.1580	.1930	.1800	.1651-02	.2021-02	.1882-02	1.063	10.35	532.9
20	2.0000	.15000	289.00	.7200-01	.8800-01	.8600-01	.7504-03	.9165-03	.8961-03	.4870	3.650	527.6
20	2.0000	.20000	290.00	.6100-01	.7400-01	.7300-01	.6337-03	.7741-03	.7620-03	.4110	3.550	527.9
20	2.0000	.25000	291.00	.5200-01	.6300-01	.6300-01	.5432-03	.6636-03	.6577-03	.3520	2.900	528.0
20	2.0000	.30000	292.00	.3800-01	.4700-01	.4700-01	.4017-03	.4905-03	.4862-03	.2610	2.140	526.4
20	2.0000	.35000	293.00	.5300-01	.6400-01	.6400-01	.5490-03	.6710-03	.6650-03	.3550	3.060	529.5
20	2.0000	.40000	294.00	.4800-01	.5800-01	.5800-01	.4998-03	.6108-03	.6054-03	.3240	2.630	529.2
20	2.0000	.45000	295.00	.4500-01	.5500-01	.5500-01	.4746-03	.5799-03	.5748-03	.3070	2.360	528.9
21	3.0000	.00000	367.00	.5670	.6990	.0000	.5893-02	.7259-02	.0000	3.710	31.25	555.2
20	3.0000	.80000-03	145.00	.3880	.4760	.0000	.4055-02	.4977-02	.0000	2.575	19.14	541.7
20	3.0000	.23000-02	146.00	.4360	.5350	.0000	.4560-02	.5598-02	.0000	2.895	21.10	541.9
20	3.0000	.43000-02	147.00	.3300	.4050	.0000	.3451-02	.4230-02	.0000	2.207	16.44	537.3

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
20	3.0000	.68000-02	148.00	.2640	.3240	.0000	.2764-02	.3383-02	.0000	1.777	12.84	533.8
20	3.0000	.95000-02	149.00	.2040	.2500	.0000	.2135-02	.2611-02	.0000	1.379	9.610	530.9
20	3.0000	.12200-01	150.00	.1820	.2230	.0000	.1906-02	.2330-02	.0000	1.231	8.650	530.9
20	3.0000	.21800-01	151.00	.1170	.1430	.0000	.1226-02	.1498-02	.0000	.7950	5.700	528.6
20	3.0000	.25100-01	152.00	.1230	.1500	.0000	.1285-02	.1570-02	.0000	.8320	6.180	529.2
20	3.0000	.28600-01	153.00	.1070	.1310	.0000	.1121-02	.1370-02	.0000	.7260	5.990	529.4
20	3.0000	.35400-01	155.00	.8900-01	.1090	.0000	.9296-03	.1136-02	.0000	.6020	4.830	528.6
20	3.0000	.38700-01	156.00	.8900-01	.1070	.0000	.9173-03	.1121-02	.0000	.5950	4.820	528.6
20	3.0000	.42000-01	157.00	.8400-01	.1030	.0000	.8813-03	.1077-02	.0000	.5710	4.680	528.7
20	3.0000	.46200-01	158.00	.8500-01	.1050	.0000	.8952-03	.1094-02	.0000	.5800	4.750	528.8
20	3.0000	.50300-01	159.00	.8400-01	.1030	.0000	.8789-03	.1074-02	.0000	.5690	5.110	528.8
20	3.0000	.55500-01	160.00	.4700-01	.5700-01	.0000	.4908-03	.6001-03	.0000	.3170	3.030	530.3
21	4.0000	.50000-01	297.00	.1120	.1370	.0000	.1162-02	.1420-02	.0000	.7590	6.350	531.3
21	4.0000	.75000-01	298.00	.8000-01	.9700-01	.0000	.8287-03	.1012-02	.0000	.5430	4.510	530.0
21	4.0000	.10000+00	299.00	.6500-01	.8000-01	.0000	.6733-03	.8291-03	.0000	.4450	3.600	528.9
21	4.0000	.12500	300.00	.4900-01	.6000-01	.0000	.5104-03	.6227-03	.0000	.3350	2.990	527.9
21	4.0000	.15000	301.00	.5000-01	.6100-01	.0000	.5202-03	.6346-03	.0000	.3420	2.740	527.6
21	4.0000	.20000	303.00	.4300-01	.5200-01	.0000	.4472-03	.5454-03	.0000	.2940	2.360	527.0
21	4.0000	.22500	304.00	.2400-01	.2900-01	.0000	.2510-03	.3061-03	.0000	.1650	1.810	526.5
21	4.0000	.25000	305.00	.1600-01	.1900-01	.0000	.1626-03	.1981-03	.0000	.1070	.8500	524.8
21	4.0000	.32500	307.00	.1000-02	.2000-02	.0000	.1399-04	.1704-04	.0000	.9000-02	.8000-01	523.4
21	5.0000	.20000	311.00	.2500-01	.3000-01	.0000	.2579-03	.3143-03	.0000	.1700	1.670	524.5
21	5.0000	.22500	312.00	.2300-01	.2800-01	.0000	.2353-03	.2866-03	.0000	.1560	1.400	523.4
21	5.0000	.25000	313.00	.1600-01	.2000-01	.0000	.1712-03	.2085-03	.0000	.1130	.8600	522.9
21	5.0000	.27500	314.00	.1300-01	.1500-01	.0000	.1377-03	.1678-03	.0000	.9100-01	.7400	522.8
21	5.0000	.30000	315.00	.2700-01	.3300-01	.0000	.2802-03	.3414-03	.0000	.1850	1.350	523.4
21	5.0000	.32500	316.00	.3300-01	.4000-01	.0000	.3433-03	.4185-03	.0000	.2270	1.830	524.7
21	5.0000	.35000	317.00	.2400-01	.2900-01	.0000	.2452-03	.2988-03	.0000	.1620	1.170	523.7
21	5.0000	.37500	318.00	.1000-01	.1300-01	.0000	.1084-03	.1320-03	.0000	.7200-01	.5300	523.7
21	5.0000	.40000	319.00	.7000-02	.8000-02	.0000	.7057-04	.8598-04	.0000	.4700-01	.3800	523.4
21	5.0000	.47500	322.00	.3000-02	.3000-02	.0000	.2765-04	.3391-04	.0000	.1800-01	.1600	521.8
21	6.0000	.20000	323.00	.2600-01	.3100-01	.0000	.2671-03	.3256-03	.0000	.1760	1.530	525.3
21	6.0000	.22500	324.00	.2100-01	.2600-01	.0000	.2210-03	.2694-03	.0000	.1460	1.220	524.7
21	6.0000	.27500	326.00	.1400-01	.1700-01	.0000	.1456-03	.1773-03	.0000	.9600-01	.8300	523.6
21	6.0000	.30000	327.00	.1300-01	.1600-01	.0000	.1401-03	.1707-03	.0000	.9300-01	.7300	523.1
21	6.0000	.32500	328.00	.1200-01	.1500-01	.0000	.1294-03	.1577-03	.0000	.8600-01	.7700	523.7
21	6.0000	.35000	329.00	.3100-01	.3800-01	.0000	.3212-03	.3915-03	.0000	.2120	1.560	524.6
21	6.0000	.37500	330.00	.4200-01	.5200-01	.0000	.4416-03	.5384-03	.0000	.2910	2.320	525.8
21	6.0000	.40000	331.00	.3000-01	.3700-01	.0000	.3153-03	.3843-03	.0000	.2080	1.740	524.6
21	6.0000	.42500	332.00	.1900-01	.2400-01	.0000	.2015-03	.2455-03	.0000	.1330	1.090	523.6
21	6.0000	.45000	333.00	.9000-02	.1100-01	.0000	.9050-04	.1102-03	.0000	.6000-01	.4900	523.2
21	7.0000	.22500	334.00	.2500-01	.3000-01	.0000	.2587-03	.3152-03	.0000	.1710	1.510	523.4
21	7.0000	.25000	335.00	.1200-01	.1500-01	.0000	.1256-03	.1530-03	.0000	.8300-01	.6500	523.9

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
21	7.0000	.27500	336.00	.1400-01	.1700-01	.0000	.1447-03	.1762-03	.0000	.9600-01	.8200	522.6
21	7.0000	.30000	337.00	.1200-01	.1400-01	.0000	.1210-03	.1474-03	.0000	.8000-01	.5900	522.3
21	7.0000	.32500	338.00	.1200-01	.1500-01	.0000	.1257-03	.1531-03	.0000	.8300-01	.7000	522.6
21	7.0000	.40000	341.00	.2700-01	.3300-01	.0000	.2792-03	.3402-03	.0000	.1840	1.490	524.4
21	7.0000	.45000	343.00	.4200-01	.5200-01	.0000	.4402-03	.5367-03	.0000	.2900	2.360	525.5
21	8.0000	.50000-01	351.00	.8800-01	.1070	.0000	.9138-03	.1116-02	.0000	.5980	4.950	530.1
21	8.0000	.75000-01	352.00	.5600-01	.6100-01	.0000	.5216-03	.6352-03	.0000	.3430	2.860	527.3
21	8.0000	.12500	354.00	.4100-01	.5000-01	.0000	.4249-03	.5181-03	.0000	.2800	2.350	526.0
21	8.0000	.15000	355.00	.2800-01	.3400-01	.0000	.2891-03	.3526-03	.0000	.1900	1.570	526.4
21	8.0000	.17500	356.00	.3200-01	.4000-01	.0000	.3371-03	.4110-03	.0000	.2220	1.610	526.0
21	8.0000	.20000	357.00	.2600-01	.3200-01	.0000	.2716-03	.3311-03	.0000	.1790	1.540	525.5
45	9.0000	.61900-01	161.00	.1400-01	.1700-01	.0000	.1468-03	.1786-03	.0000	.9700-01	.8300	518.0
45	9.0000	.70900-01	162.00	.1300-01	.1600-01	.0000	.1344-03	.1635-03	.0000	.8900-01	.9500	518.3
45	9.0000	.80700-01	163.00	.1100-01	.1400-01	.0000	.1190-03	.1447-03	.0000	.7900-01	.6500	517.0
45	9.0000	.94300-01	164.00	.1100-01	.1300-01	.0000	.1102-03	.1340-03	.0000	.7300-01	.5700	516.4
45	9.0000	.97800-01	165.00	.8000-02	.1000-01	.0000	.8159-04	.9922-04	.0000	.5400-01	.4300	516.7
45	9.0000	.10130	166.00	.6000-02	.7000-02	.0000	.6226-04	.7570-04	.0000	.4100-01	.3300	516.2
45	10.000	.61900-01	167.00	.1900-01	.2400-01	.0000	.2022-03	.2459-03	.0000	.1340	1.000	516.8
45	10.000	.70900-01	168.00	.1400-01	.1700-01	.0000	.1484-03	.1805-03	.0000	.9900-01	.9500	517.0
45	10.000	.80700-01	169.00	.1100-01	.1300-01	.0000	.1110-03	.1350-03	.0000	.7400-01	.6100	516.2
45	10.000	.94300-01	170.00	.1000-01	.1200-01	.0000	.1018-03	.1238-03	.0000	.6800-01	.5500	516.8
45	10.000	.97800-01	171.00	.9000-02	.1100-01	.0000	.9814-04	.1193-03	.0000	.6500-01	.5500	516.6
45	10.000	.10130	172.00	.7000-02	.9000-02	.0000	.7297-04	.8873-04	.0000	.4900-01	.3800	516.2
45	11.000	.80700-01	173.00	.8000-02	.1000-01	.0000	.8796-04	.1070-03	.0000	.5900-01	.4400	516.4
45	11.000	.94300-01	174.00	.6000-02	.7000-02	.0000	.5951-04	.7235-04	.0000	.4000-01	.3500	516.0
45	11.000	.97800-01	175.00	.7000-02	.8000-02	.0000	.7166-04	.8711-04	.0000	.4800-01	.3400	515.6
45	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.5077-04	.6172-04	.0000	.3400-01	.2500	515.4

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
46	7.930	25.10	165.4	1237.	91.10	.1790-01	.7890	3710.	.5314-03	.7330-07	.8360	.1437-01
47	7.930	24.98	165.1	1237.	91.10	.1790-01	.7880	3710.	.5304-03	.7330-07	.8350	.1435-01
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
46	.2941-01
47	.2944-01
48	.2935-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
47	1.0000	.00000	367.00	.5820	.7140	.0000	.8359-02	.1025-01	.0000	5.612	47.03	565.3
47	1.0000	.80000-03	368.00	.4480	.5460	.0000	.6432-02	.7844-02	.0000	4.419	34.56	549.7
47	1.0000	.19000-02	369.00	.2520	.3060	.0000	.3611-02	.4391-02	.0000	2.516	21.44	540.0
47	1.0000	.37000-02	370.00	.1770	.2150	.0000	.2544-02	.3085-02	.0000	1.794	14.74	531.3
47	1.0000	.87000-02	372.00	.9500-01	.1150	.0000	.1363-02	.1650-02	.0000	.9700	8.150	524.8
47	1.0000	.11800-01	373.00	.7200-01	.8700-01	.0000	.1036-02	.1253-02	.0000	.7400	5.680	522.7
47	1.0000	.15100-01	374.00	.5600-01	.6800-01	.0000	.8036-03	.9718-03	.0000	.5740	4.410	522.1
47	1.0000	.18200-01	375.00	.4300-01	.5900-01	.0000	.6999-03	.8450-03	.0000	.5000	3.680	521.1
47	1.0000	.21500-01	376.00	.3500-01	.4300-01	.0000	.5092-03	.6154-03	.0000	.3650	2.790	520.0
47	1.0000	.24600-01	377.00	.3700-01	.4500-01	.0000	.5317-03	.6426-03	.0000	.3810	2.990	519.7
47	1.0000	.27800-01	378.00	.2900-01	.3500-01	.0000	.4114-03	.4973-03	.0000	.2950	2.550	520.1
47	1.0000	.60900-01	379.00	.2500-01	.3100-01	.0000	.3649-03	.4410-03	.0000	.2620	2.150	519.3
47	1.0000	.64600-01	380.00	.1600-01	.2000-01	.0000	.2349-03	.2837-03	.0000	.1690	1.660	518.3
47	1.0000	.68400-01	381.00	.1900-01	.2300-01	.0000	.2681-03	.3238-03	.0000	.1930	1.500	518.1
47	1.0000	.72100-01	382.00	.1500-01	.1900-01	.0000	.2210-03	.2669-03	.0000	.1590	1.220	517.8
47	1.0000	.79100-01	384.00	.1400-01	.1700-01	.0000	.1994-03	.2408-03	.0000	.1430	1.040	517.4
47	1.0000	.94300-01	385.00	.1000-01	.1200-01	.0000	.1410-03	.1703-03	.0000	.1010	.8000	517.3
47	1.0000	.97800-01	386.00	.9000-02	.1100-01	.0000	.1325-03	.1600-03	.0000	.9500-01	.8100	517.0

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
47	1.0000	.10190	387.00	.9000-02	.1100-01	.0000	.1299-03	.1568-03	.0000	.9300-01	.7700	517.4
47	1.0000	.11600	388.00	.9000-02	.1100-01	.0000	.1276-03	.1541-03	.0000	.9200-01	.9700	517.2
47	1.0000	.11950	389.00	.1100-01	.1300-01	.0000	.1530-03	.1848-03	.0000	.1100	.7700	517.1
47	1.0000	.12680	391.00	.8000-02	.1000-01	.0000	.1162-03	.1403-03	.0000	.8400-01	.5300	516.8
47	1.0000	.13050	392.00	.8000-02	.1000-01	.0000	.1213-03	.1465-03	.0000	.8700-01	.5100	516.4
47	1.0000	.13380	393.00	.8000-02	.9000-02	.0000	.1104-03	.1332-03	.0000	.7900-01	.4700	516.7
47	1.0000	.13760	394.00	.5000-02	.6000-02	.0000	.7424-04	.8963-04	.0000	.5300-01	.3200	516.3
47	1.0000	.14110	395.00	.6000-02	.7000-02	.0000	.8857-04	.1069-03	.0000	.6400-01	.4300	516.2
47	1.0000	.14480	396.00	.5000-02	.6000-02	.0000	.7597-04	.9171-04	.0000	.5500-01	.3700	516.4
47	1.0000	.14830	397.00	.6000-02	.8000-02	.0000	.9030-04	.1090-03	.0000	.6500-01	.4400	516.4
47	1.0000	.15190	398.00	.9000-02	.1100-01	.0000	.1293-03	.1561-03	.0000	.9300-01	.6700	517.0
47	1.0000	.15560	399.00	.1500-01	.1800-01	.0000	.2124-03	.2564-03	.0000	.1530	1.150	517.0
47	1.0000	.15820	400.00	.3300-01	.3900-01	.0000	.4665-03	.5638-03	.0000	.3340	2.500	519.8
47	1.0000	.16080	401.00	.3500-01	.4200-01	.0000	.5035-03	.6088-03	.0000	.3600	2.800	521.2
47	1.0000	.16350	402.00	.4300-01	.5200-01	.0000	.6137-03	.7424-03	.0000	.4380	3.530	523.1
47	1.0000	.16640	403.00	.4800-01	.5300-01	.0000	.6919-03	.8367-03	.0000	.4950	4.100	521.8
47	2.0000	.00000	367.00	.5820	.7140	.0000	.8359-02	.1025-01	.0000	5.612	47.03	565.3
46	2.0000	.10000-02	273.00	.6480	.7960	.6520	.9305-02	.1143-01	.9360-02	6.181	50.47	572.4
46	2.0000	.18000-02	274.00	.6300	.7740	.6310	.9056-02	.1111-01	.9063-02	6.050	48.94	568.6
46	2.0000	.41000-02	275.00	.5510	.6760	.5550	.7920-02	.9714-02	.7970-02	5.305	42.18	566.9
46	2.0000	.70000-02	276.00	.5090	.6230	.5240	.7309-02	.8946-02	.7528-02	4.940	39.98	560.8
46	2.0000	.10300-01	277.00	.4570	.5590	.4750	.6565-02	.8029-02	.6824-02	4.451	35.28	558.7
46	2.0000	.15100-01	278.00	.4630	.5660	.4870	.6654-02	.8125-02	.6993-02	4.544	35.60	553.8
46	2.0000	.19300-01	279.00	.2810	.3430	.3000	.4041-02	.4928-02	.4314-02	2.776	26.59	549.6
46	2.0000	.23200-01	280.00	.9700-01	.1170	.1040	.1388-02	.1683-02	.1490-02	.9790	10.45	531.3
46	2.0000	.26300-01	281.00	.2420	.2960	.2630	.3484-02	.4249-02	.3775-02	2.394	27.99	549.6
46	2.0000	.29900-01	282.00	.2460	.3000	.2680	.3534-02	.4305-02	.3850-02	2.441	23.62	546.0
46	2.0000	.33800-01	283.00	.2140	.2600	.2350	.3075-02	.3741-02	.3381-02	2.137	20.63	541.8
46	2.0000	.38100-01	284.00	.1950	.2370	.2160	.2803-02	.3408-02	.3107-02	1.954	18.97	539.5
46	2.0000	.41400-01	285.00	.1820	.2210	.2030	.2617-02	.3181-02	.2919-02	1.827	17.75	538.6
46	2.0000	.45200-01	286.00	.1770	.2150	.1930	.2546-02	.3092-02	.2862-02	1.785	16.64	535.7
46	2.0000	.50300-01	287.00	.1640	.2000	.1860	.2361-02	.2868-02	.2678-02	1.650	16.03	537.8
46	2.0000	.15000	289.00	.7700-01	.9400-01	.9200-01	.1111-02	.1345-02	.1316-02	.7890	5.910	526.2
46	2.0000	.20000	290.00	.6100-01	.7400-01	.7300-01	.8833-03	.1070-02	.1053-02	.6270	5.420	527.0
46	2.0000	.25000	291.00	.5600-01	.6800-01	.6700-01	.8012-03	.9703-03	.9617-03	.5690	4.680	527.0
46	2.0000	.30000	292.00	.4400-01	.5300-01	.5300-01	.6306-03	.7634-03	.7567-03	.4480	3.660	526.0
46	2.0000	.35000	293.00	.5600-01	.6800-01	.6700-01	.8049-03	.9759-03	.9671-03	.5680	4.880	530.9
46	2.0000	.40000	294.00	.5200-01	.6300-01	.6200-01	.7455-03	.9037-03	.8957-03	.5270	4.280	530.4
46	2.0000	.45000	295.00	.4900-01	.5900-01	.5900-01	.7037-03	.8529-03	.8452-03	.4980	3.820	529.6
47	3.0000	.00000	367.00	.5820	.7140	.0000	.8359-02	.1025-01	.0000	5.612	47.03	565.3
46	3.0000	.80000-03	145.00	.4230	.5170	.0000	.6079-02	.7427-02	.0000	4.141	30.58	555.4
46	3.0000	.23000-02	146.00	.4420	.5400	.0000	.6354-02	.7763-02	.0000	4.329	31.34	555.4
46	3.0000	.43000-02	147.00	.3330	.4060	.0000	.4782-02	.5828-02	.0000	3.296	24.43	547.5

OH103A,AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
46	3.0000	.68000-02	148.00	.2620	.3190	.0000	.3766-02	.4579-02	.0000	2.623	18.88	540.2
46	3.0000	.95000-02	149.00	.2180	.2640	.0000	.3126-02	.3794-02	.0000	2.195	15.26	534.5
46	3.0000	.12200-01	150.00	.1950	.2380	.0000	.2815-02	.3418-02	.0000	1.975	13.85	535.2
46	3.0000	.21800-01	151.00	.1190	.1440	.0000	.1711-02	.2073-02	.0000	1.211	8.680	529.1
46	3.0000	.25100-01	152.00	.1260	.1530	.0000	.1816-02	.2200-02	.0000	1.286	9.560	528.5
46	3.0000	.28600-01	153.00	.1070	.1300	.0000	.1544-02	.1871-02	.0000	1.094	9.030	528.5
46	3.0000	.35400-01	155.00	.9200-01	.1120	.0000	.1328-02	.1608-02	.0000	.9430	7.560	527.0
46	3.0000	.38700-01	156.00	.9700-01	.1170	.0000	.1389-02	.1683-02	.0000	.9850	7.990	527.5
46	3.0000	.42000-01	157.00	.9300-01	.1120	.0000	.1330-02	.1611-02	.0000	.9430	7.730	527.5
46	3.0000	.46200-01	158.00	.9300-01	.1130	.0000	.1335-02	.1617-02	.0000	.9470	7.770	527.2
46	3.0000	.50300-01	159.00	.8600-01	.1040	.0000	.1234-02	.1495-02	.0000	.8760	7.870	527.3
47	4.0000	.50000-01	297.00	.1180	.1420	.0000	.1687-02	.2044-02	.0000	1.194	10.00	528.9
47	4.0000	.75000-01	298.00	.8700-01	.1050	.0000	.1250-02	.1514-02	.0000	.8840	7.350	528.9
47	4.0000	.10000+00	299.00	.7200-01	.8700-01	.0000	.1032-02	.1250-02	.0000	.7330	5.930	526.5
47	4.0000	.12500	300.00	.5400-01	.6600-01	.0000	.7801-03	.9442-03	.0000	.5550	4.960	524.9
47	4.0000	.15000	301.00	.5600-01	.6800-01	.0000	.8048-03	.9738-03	.0000	.5730	4.610	524.3
47	4.0000	.20000	303.00	.4900-01	.5900-01	.0000	.7014-03	.8483-03	.0000	.5010	4.030	522.6
47	4.0000	.22500	304.00	.2600-01	.3200-01	.0000	.3790-03	.4583-03	.0000	.2710	2.980	521.8
47	4.0000	.25000	305.00	.1900-01	.2300-01	.0000	.2729-03	.3298-03	.0000	.1960	1.560	519.6
47	4.0000	.32500	307.00	.3000-02	.3000-02	.0000	.4056-04	.4899-04	.0000	.2900-01	.2700	517.7
47	4.0000	.37500	308.00	.2000-02	.3000-02	.0000	.3004-04	.3629-04	.0000	.2200-01	.1700	518.0
47	5.0000	.20000	311.00	.2800-01	.3400-01	.0000	.3997-03	.4830-03	.0000	.2870	2.810	519.7
47	5.0000	.22500	312.00	.2500-01	.3000-01	.0000	.3584-03	.4329-03	.0000	.2570	2.320	518.8
47	5.0000	.25000	313.00	.1800-01	.2200-01	.0000	.2651-03	.3201-03	.0000	.1910	1.450	517.6
47	5.0000	.27500	314.00	.1300-01	.1500-01	.0000	.1838-03	.2219-03	.0000	.1320	1.070	517.1
47	5.0000	.30000	315.00	.3100-01	.3700-01	.0000	.4393-03	.5295-03	.0000	.3150	2.310	518.3
47	5.0000	.32500	316.00	.4900-01	.5900-01	.0000	.7053-03	.8528-03	.0000	.5040	4.070	521.5
47	5.0000	.35000	317.00	.2300-01	.2800-01	.0000	.3279-03	.3962-03	.0000	.2350	1.710	519.5
47	5.0000	.37500	318.00	.1400-01	.1700-01	.0000	.2017-03	.2436-03	.0000	.1450	1.080	518.0
47	5.0000	.40000	319.00	.8000-02	.9000-02	.0000	.1107-03	.1337-03	.0000	.8000-01	.6500	517.4
47	5.0000	.47500	322.00	.4000-02	.5000-02	.0000	.6016-04	.7259-04	.0000	.4300-01	.3800	514.7
47	6.0000	.20000	323.00	.2800-01	.3300-01	.0000	.3962-03	.4789-03	.0000	.2840	2.470	520.7
47	6.0000	.22500	324.00	.1600-01	.2000-01	.0000	.2338-03	.2826-03	.0000	.1670	1.410	520.3
47	6.0000	.27500	326.00	.1700-01	.2000-01	.0000	.2384-03	.2880-03	.0000	.1710	1.480	518.3
47	6.0000	.30000	327.00	.1600-01	.1900-01	.0000	.2261-03	.2730-03	.0000	.1630	1.280	517.6
47	6.0000	.32500	328.00	.1200-01	.1500-01	.0000	.1729-03	.2088-03	.0000	.1240	1.130	517.6
47	6.0000	.35000	329.00	.2800-01	.3400-01	.0000	.4070-03	.4918-03	.0000	.2920	2.150	519.2
47	6.0000	.37500	330.00	.5200-01	.6300-01	.0000	.7485-03	.9051-03	.0000	.5350	4.270	522.0
47	6.0000	.40000	331.00	.4700-01	.5700-01	.0000	.6766-03	.8181-03	.0000	.4840	4.050	522.0
47	6.0000	.42500	332.00	.3200-01	.3900-01	.0000	.4662-03	.5632-03	.0000	.3350	2.740	518.6
47	6.0000	.45000	333.00	.1500-01	.1800-01	.0000	.2198-03	.2654-03	.0000	.1580	1.310	516.8
47	7.0000	.22500	334.00	.2600-01	.3100-01	.0000	.3683-03	.4450-03	.0000	.2640	2.340	519.0
47	7.0000	.25000	335.00	.1500-01	.1800-01	.0000	.2118-03	.2558-03	.0000	.1520	1.190	518.2

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
47	7.0000	.27500	336.00	.1600-01	.1900-01	.0000	.2282-03	.2756-03	.0000	.1640	1.420	517.2
47	7.0000	.30000	337.00	.1500-01	.1800-01	.0000	.2090-03	.2524-03	.0000	.1500	1.100	517.1
47	7.0000	.32500	338.00	.1500-01	.1800-01	.0000	.2124-03	.2565-03	.0000	.1530	1.280	517.4
47	7.0000	.35000	339.00	.8000-02	.9000-02	.0000	.1078-03	.1302-03	.0000	.7800-01	.5800	516.9
47	7.0000	.40000	341.00	.3000-01	.3600-01	.0000	.4333-03	.5234-03	.0000	.3110	2.520	518.6
47	7.0000	.45000	343.00	.5300-01	.6400-01	.0000	.7573-03	.9154-03	.0000	.5420	4.430	520.9
47	8.0000	.50000-01	351.00	.1050	.1270	.0000	.1509-02	.1828-02	.0000	1.069	8.860	528.1
47	8.0000	.75000-01	352.00	.5500-01	.6700-01	.0000	.7037-03	.9602-03	.0000	.5660	4.740	523.3
47	8.0000	.12500	354.00	.4200-01	.5100-01	.0000	.5995-03	.7251-03	.0000	.4280	3.600	522.5
47	8.0000	.15000	355.00	.3200-01	.3900-01	.0000	.4642-03	.5613-03	.0000	.3320	2.740	521.5
47	8.0000	.17500	356.00	.4000-01	.4800-01	.0000	.5670-03	.6856-03	.0000	.4050	2.940	521.8
47	8.0000	.20000	357.00	.2900-01	.3400-01	.0000	.4092-03	.4948-03	.0000	.2930	2.520	521.7
48	9.0000	.61900-01	161.00	.1300-01	.1500-01	.0000	.1835-03	.2216-03	.0000	.1320	1.120	519.2
48	9.0000	.70900-01	162.00	.1200-01	.1500-01	.0000	.1741-03	.2103-03	.0000	.1250	1.330	519.8
48	9.0000	.80700-01	163.00	.1100-01	.1300-01	.0000	.1528-03	.1846-03	.0000	.1100	.9000	518.7
48	9.0000	.94300-01	164.00	.9000-02	.1100-01	.0000	.1359-03	.1642-03	.0000	.9800-01	.7600	517.9
48	9.0000	.97800-01	165.00	.7000-02	.8000-02	.0000	.9622-04	.1162-03	.0000	.6900-01	.5500	518.0
48	9.0000	.10130	166.00	.5000-02	.6000-02	.0000	.7400-04	.8936-04	.0000	.5300-01	.4200	517.5
48	10.000	.61900-01	167.00	.1800-01	.2200-01	.0000	.2638-03	.3187-03	.0000	.1890	1.410	519.4
48	10.000	.70900-01	168.00	.1300-01	.1600-01	.0000	.1859-03	.2246-03	.0000	.1340	1.280	519.2
48	10.000	.80700-01	169.00	.1000-01	.1200-01	.0000	.1425-03	.1721-03	.0000	.1030	.8500	518.2
48	10.000	.94300-01	170.00	.9000-02	.1100-01	.0000	.1343-03	.1622-03	.0000	.9700-01	.7800	518.7
48	10.000	.97800-01	171.00	.9000-02	.1000-01	.0000	.1225-03	.1480-03	.0000	.8800-01	.7400	518.4
48	10.000	.10130	172.00	.7000-02	.8000-02	.0000	.9438-04	.1140-03	.0000	.6800-01	.5300	517.9
48	11.000	.80700-01	173.00	.8000-02	.9000-02	.0000	.1089-03	.1315-03	.0000	.7800-01	.5900	518.5
48	11.000	.94300-01	174.00	.5000-02	.6000-02	.0000	.7321-04	.8841-04	.0000	.5300-01	.4700	517.9
48	11.000	.97800-01	175.00	.6000-02	.7000-02	.0000	.8351-04	.1008-03	.0000	.6000-01	.4200	517.5
48	11.000	.10130	176.00	.4000-02	.5000-02	.0000	.6136-04	.7409-04	.0000	.4400-01	.3300	517.3

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
1	7.970	24.98	327.2	1278.	93.20	.3430-01	1.527	3772.	.9943-03	.7502-07	1.550	.2010-01
2	7.970	24.98	337.9	1274.	92.90	.3550-01	1.577	3767.	.1030-02	.7479-07	1.610	.2041-01
71	7.970	25.00	338.1	1254.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
1	.2157-01
2	.2119-01
71	.2108-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
2	1.0000	.00000	367.00	.5830	.7160	.0000	.1189-01	.1461-01	.0000	8.148	67.50	588.5
2	1.0000	.80000-03	368.00	.4360	.5520	.0000	.8892-02	.1085-01	.0000	6.277	48.66	567.7
2	1.0000	.19000-02	369.00	.2510	.3050	.0000	.5113-02	.6216-02	.0000	3.673	31.05	555.4
2	1.0000	.37000-02	370.00	.1750	.2120	.0000	.3580-02	.4335-02	.0000	2.619	21.40	542.1
2	1.0000	.87000-02	372.00	.9400-01	.1140	.0000	.1926-02	.2327-02	.0000	1.425	11.91	533.9
2	1.0000	.11800-01	373.00	.6700-01	.8100-01	.0000	.1376-02	.1661-02	.0000	1.022	7.820	531.0
2	1.0000	.15100-01	374.00	.5300-01	.6300-01	.0000	.1073-02	.1295-02	.0000	.7980	6.110	529.9
2	1.0000	.18200-01	375.00	.4400-01	.5300-01	.0000	.8994-03	.1083-02	.0000	.6700	4.920	527.6
2	1.0000	.21500-01	376.00	.3100-01	.3800-01	.0000	.6425-03	.7746-03	.0000	.4800	3.650	527.1
2	1.0000	.24600-01	377.00	.3200-01	.3900-01	.0000	.6540-03	.7888-03	.0000	.4980	3.800	528.2
2	1.0000	.27800-01	378.00	.2300-01	.2800-01	.0000	.4699-03	.5665-03	.0000	.3510	3.020	526.6
2	1.0000	.60900-01	379.00	.2300-01	.2700-01	.0000	.4643-03	.5599-03	.0000	.3470	2.830	527.3
2	1.0000	.64600-01	380.00	.1500 01	.1800-01	.0000	.3014-03	.3632-03	.0000	.2250	2.200	525.6
2	1.0000	.68400-01	381.00	.1700-01	.2000-01	.0000	.3394-03	.4092-03	.0000	.2540	1.970	526.2
2	1.0000	.72100-01	382.00	.1400-01	.1600-01	.0000	.2782-03	.3354-03	.0000	.2080	1.600	525.9
2	1.0000	.79100-01	384.00	.1000-01	.1200-01	.0000	.2093-03	.2522-03	.0000	.1570	1.130	525.7
2	1.0000	.94300-01	385.00	.1100-01	.1300-01	.0000	.2158-03	.2601-03	.0000	.1620	1.260	525.2
2	1.0000	.97800-01	386.00	.1000-01	.1200-01	.0000	.2001-03	.2412-03	.0000	.1500	1.270	525.5

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA01)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
2	1.0000	.10190	387.00	.1000-01	.1200-01	.0000	.1990-03	.2399-03	.0000	.1490	1.220	525.9
2	1.0000	.11600	388.00	.9000-02	.1000-01	.0000	.1754-03	.2114-03	.0000	.1310	1.380	526.9
2	1.0000	.11950	389.00	.1200-01	.1400-01	.0000	.2355-03	.2839-03	.0000	.1760	1.220	526.4
2	1.0000	.13050	392.00	.1000-01	.1200-01	.0000	.1949-03	.2349-03	.0000	.1460	.8500	526.2
2	1.0000	.13380	393.00	.9000-02	.1100-01	.0000	.1930-03	.2328-03	.0000	.1440	.8500	527.8
2	1.0000	.13760	394.00	.1000-01	.1200-01	.0000	.2111-03	.2544-03	.0000	.1580	.9400	526.2
2	1.0000	.14110	395.00	.8000-02	.1000-01	.0000	.1652-03	.1991-03	.0000	.1240	.8300	526.1
2	1.0000	.14480	396.00	.8000-02	.1000-01	.0000	.1728-03	.2083-03	.0000	.1290	.8700	526.5
2	1.0000	.14830	397.00	.1000-01	.1200-01	.0000	.2026-03	.2442-03	.0000	.1510	1.020	526.6
2	1.0000	.15190	398.00	.1500-01	.2000-01	.0000	.3350-03	.4040-03	.0000	.2500	1.780	527.3
2	1.0000	.15560	399.00	.2700-01	.3200-01	.0000	.5463-03	.6587-03	.0000	.4080	3.060	527.3
2	1.0000	.15820	400.00	.6400-01	.7800-01	.0000	.1315-02	.1589-02	.0000	.9720	7.210	534.5
2	1.0000	.16080	401.00	.9900-01	.1190	.0000	.2016-02	.2436-02	.0000	1.490	11.50	534.7
2	1.0000	.16350	402.00	.8500-01	.1020	.0000	.1725-02	.2086-02	.0000	1.269	10.16	538.2
2	1.0000	.16640	403.00	.8800-01	.1060	.0000	.1796-02	.2171-02	.0000	1.323	10.88	536.8
2	2.0000	.00000	367.00	.5830	.7160	.0000	.1189-01	.1461-01	.0000	8.148	67.50	588.5
1	2.0000	.10000-02	273.00	.6540	.8060	.6580	.1314-01	.1620-01	.1322-01	8.901	71.67	600.5
1	2.0000	.18000-02	274.00	.6160	.7580	.6160	.1238-01	.1523-01	.1239-01	8.444	67.40	595.6
1	2.0000	.41000-02	275.00	.5550	.6930	.5590	.1116-01	.1372-01	.1123-01	7.633	59.88	593.8
1	2.0000	.70000-02	276.00	.5060	.6210	.5220	.1017-01	.1247-01	.1048-01	7.037	54.84	585.7
1	2.0000	.10300-01	277.00	.4540	.5570	.4730	.9127-02	.1118-01	.9495-02	6.340	49.65	583.0
1	2.0000	.15100-01	278.00	.4580	.5600	.4820	.9207-02	.1126-01	.9692-02	6.462	50.06	575.9
1	2.0000	.19900-01	279.00	.2820	.3450	.3020	.5674-02	.6923-02	.6061-02	4.018	38.09	569.5
1	2.0000	.23200-01	280.00	.8900-01	.1070	.9500-01	.1781-02	.2158-02	.1912-02	1.302	13.79	546.6
1	2.0000	.26300-01	281.00	.2410	.2940	.2620	.4850-02	.5918-02	.5259-02	3.435	39.77	569.4
1	2.0000	.29900-01	282.00	.2490	.3040	.2720	.5007-02	.6101-02	.5458-02	3.566	34.18	565.4
1	2.0000	.33800-01	283.00	.2150	.2610	.2360	.4314-02	.5252-02	.4748-02	3.086	29.49	562.2
1	2.0000	.38100-01	284.00	.1950	.2380	.2170	.3926-02	.4776-02	.4355-02	2.820	27.10	559.4
1	2.0000	.41400-01	285.00	.1810	.2200	.2020	.3642-02	.4428-02	.4064-02	2.620	25.20	558.2
1	2.0000	.45200-01	286.00	.1760	.2130	.1970	.3528-02	.4285-02	.3968-02	2.553	23.57	554.2
1	2.0000	.50300-01	287.00	.1610	.1960	.1830	.3235-02	.3932-02	.3672-02	2.335	22.48	556.0
1	2.0000	.15000	289.00	.7200-01	.8700-01	.8500-01	.1444-02	.1748-02	.1711-02	1.062	7.900	542.0
1	2.0000	.20000	290.00	.5700-01	.6900-01	.6800-01	.1153-02	.1396-02	.1375-02	.8450	7.240	544.6
1	2.0000	.25000	291.00	.5100-01	.6200-01	.6200-01	.1032-02	.1249-02	.1239-02	.7590	6.200	542.6
1	2.0000	.30000	292.00	.3900-01	.4700-01	.4700-01	.7794-03	.9427-03	.9349-03	.5750	4.660	540.3
1	2.0000	.35000	293.00	.5200-01	.6300-01	.6300-01	.1052-02	.1275-02	.1264-02	.7690	6.550	546.9
1	2.0000	.40000	294.00	.4900-01	.6000-01	.5900-01	.9900-03	.1200-02	.1189-02	.7240	5.840	546.3
1	2.0000	.45000	295.00	.4700-01	.5700-01	.5600-01	.9386-03	.1137-02	.1128-02	.6870	5.240	545.7
2	3.0000	.00000	367.00	.5830	.7160	.0000	.1189-01	.1461-01	.0000	8.148	67.50	588.5
1	3.0000	.80000-03	145.00	.4430	.5420	.0000	.8893-02	.1089-01	.0000	6.227	45.47	577.9
1	3.0000	.23000-02	146.00	.4440	.5430	.0000	.8925-02	.1091-01	.0000	6.259	44.84	576.3
1	3.0000	.43000-02	147.00	.3370	.4110	.0000	.6770-02	.8254-02	.0000	4.814	35.34	566.7
1	3.0000	.68000-02	148.00	.2530	.3200	.0000	.5290-02	.6435-02	.0000	3.799	27.09	559.6

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
1	3.0000	.95000-02	149.00	.2060	.2500	.0000	.4147-02	.5031-02	.0000	3.013	20.77	551.0
1	3.0000	.12200-01	150.00	.1970	.2390	.0000	.3955-02	.4802-02	.0000	2.867	19.93	552.8
1	3.0000	.21900-01	151.00	.1180	.1430	.0000	.2366-02	.2866-02	.0000	1.733	12.33	545.2
1	3.0000	.25100-01	152.00	.1230	.1490	.0000	.2474-02	.2997-02	.0000	1.812	13.35	545.4
1	3.0000	.28600-01	153.00	.1080	.1310	.0000	.2168-02	.2626-02	.0000	1.587	12.99	545.5
1	3.0000	.35400-01	155.00	.1010	.1220	.0000	.2027-02	.2455-02	.0000	1.486	11.82	544.4
1	3.0000	.38700-01	156.00	.9300-01	.1130	.0000	.1870-02	.2264-02	.0000	1.373	11.05	543.5
1	3.0000	.42000-01	157.00	.9000-01	.1090	.0000	.1804-02	.2184-02	.0000	1.325	10.77	543.4
1	3.0000	.46200-01	158.00	.9100-01	.1100	.0000	.1823-02	.2206-02	.0000	1.338	10.89	543.3
1	3.0000	.50300-01	159.00	.7900-01	.9500-01	.0000	.1592-02	.1927-02	.0000	1.169	10.42	543.5
1	3.0000	.55500-01	160.00	.8400-01	.1010	.0000	.1681-02	.2035-02	.0000	1.234	11.70	543.5
2	4.0000	.25000-01	296.00	.1670	.2030	.0000	.3415-02	.4136-02	.0000	2.495	19.04	543.1
2	4.0000	.50000-01	297.00	.1170	.1410	.0000	.2381-02	.2882-02	.0000	1.747	14.55	540.2
2	4.0000	.75000-01	298.00	.8500-01	.1030	.0000	.1738-02	.2102-02	.0000	1.277	10.57	538.7
2	4.0000	.10000+00	299.00	.7000-01	.8400-01	.0000	.1420-02	.1716-02	.0000	1.047	8.430	536.0
2	4.0000	.12500	300.00	.5100-01	.6200-01	.0000	.1040-02	.1257-02	.0000	.7680	6.820	535.0
2	4.0000	.15000	301.00	.5000-01	.6100-01	.0000	.1027-02	.1241-02	.0000	.7600	6.080	534.1
2	4.0000	.20000	303.00	.4400-01	.5400-01	.0000	.9077-03	.1096-02	.0000	.6770	5.380	532.6
2	4.0000	.22500	304.00	.2200-01	.2700-01	.0000	.4533-03	.5471-03	.0000	.3370	3.680	530.7
2	4.0000	.25000	305.00	.1700-01	.2000-01	.0000	.3459-03	.4172-03	.0000	.2580	2.050	528.1
2	4.0000	.32500	307.00	.3000-02	.4000-02	.0000	.6216-04	.7492-04	.0000	.4600-01	.4300	526.0
2	4.0000	.37500	308.00	.1000-02	.1000-02	.0000	.2341-04	.2822-04	.0000	.1700-01	.1400	526.2
2	4.0000	.42500	309.00	.1000-02	.1000-02	.0000	.1699-04	.2046-04	.0000	.1300-01	.1000+00	525.9
2	5.0000	.20000	311.00	.2700-01	.3300-01	.0000	.5513-03	.6652-03	.0000	.4100	4.000	529.6
2	5.0000	.22500	312.00	.2300-01	.2800-01	.0000	.4708-03	.5677-03	.0000	.3510	3.150	527.8
2	5.0000	.25000	313.00	.1600-01	.1900-01	.0000	.3280-03	.3953-03	.0000	.2450	1.860	526.4
2	5.0000	.27500	314.00	.1000-01	.1200-01	.0000	.2019-03	.2434-03	.0000	.1510	1.220	526.1
2	5.0000	.30000	315.00	.1600-01	.2200-01	.0000	.3765-03	.4540-03	.0000	.2810	2.050	527.6
2	5.0000	.32500	316.00	.5900-01	.7200-01	.0000	.1213-02	.1466-02	.0000	.8960	7.190	534.9
2	5.0000	.35000	317.00	.2500-01	.3000-01	.0000	.5006-03	.6041-03	.0000	.3720	2.690	530.1
2	5.0000	.37500	318.00	.1400-01	.1700-01	.0000	.2794-03	.3369-03	.0000	.2080	1.550	528.0
2	5.0000	.40000	319.00	.8000-02	.9000-02	.0000	.1543-03	.1861-03	.0000	.1150	.9300	527.7
2	5.0000	.47500	322.00	.4000-02	.5000-02	.0000	.7936-04	.9563-04	.0000	.5900-01	.5100	525.3
2	6.0000	.20000	323.00	.2600-01	.3200-01	.0000	.5352-03	.6459-03	.0000	.3980	3.450	530.4
2	6.0000	.22500	324.00	.1800-01	.2200-01	.0000	.3740-03	.4511-03	.0000	.2790	2.330	528.6
2	6.0000	.27500	326.00	.1400-01	.1700-01	.0000	.2923-03	.3526-03	.0000	.2180	1.870	528.6
2	6.0000	.30000	327.00	.1400-01	.1700-01	.0000	.2847-03	.3433-03	.0000	.2120	1.670	528.3
2	6.0000	.32500	328.00	.8000-02	.1000-01	.0000	.1616-03	.1949-03	.0000	.1210	1.090	527.8
2	6.0000	.35000	329.00	.2600-01	.3100-01	.0000	.5222-03	.6300-03	.0000	.3890	2.850	529.5
2	6.0000	.37500	330.00	.3700-01	.4500-01	.0000	.7603-03	.9179-03	.0000	.5640	4.490	531.6
2	6.0000	.40000	331.00	.5900-01	.7100-01	.0000	.1206-02	.1458-02	.0000	.8900	7.400	536.1
2	6.0000	.42500	332.00	.5700-01	.6900-01	.0000	.1157-02	.1399-02	.0000	.8550	6.930	535.0
2	6.0000	.45000	333.00	.2700-01	.3300-01	.0000	.5593-03	.6748-03	.0000	.4160	3.420	529.5

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
2	7.0000	.22500	334.00	.1800-01	.2200-01	.0000	.3694-03	.4456-03	.0000	.2750	2.420	528.6
2	7.0000	.25000	335.00	.2500-01	.3000-01	.0000	.5106-03	.6161-03	.0000	.3800	2.950	529.3
2	7.0000	.27500	336.00	.2000-01	.2400-01	.0000	.4017-03	.4844-03	.0000	.3000	2.570	527.6
2	7.0000	.30000	337.00	.1100-01	.1300-01	.0000	.2207-03	.2661-03	.0000	.1650	1.200	527.6
2	7.0000	.32500	338.00	.1100-01	.1400-01	.0000	.2301-03	.2775-03	.0000	.1720	1.430	528.0
2	7.0000	.35000	339.00	.8000-02	.9000-02	.0000	.1580-03	.1905-03	.0000	.1180	.8800	527.3
2	7.0000	.40000	341.00	.2400-01	.2900-01	.0000	.4848-03	.5849-03	.0000	.3610	2.900	529.8
2	7.0000	.45000	343.00	.3000-01	.3600-01	.0000	.6081-03	.7340-03	.0000	.4520	3.670	531.0
2	8.0000	.50000-01	351.00	.1040	.1250	.0000	.2117-02	.2561-02	.0000	1.555	12.82	539.1
2	8.0000	.75000-01	352.00	.5200-01	.6300-01	.0000	.1070-02	.1292-02	.0000	.7920	6.600	533.2
2	8.0000	.12500	354.00	.3400-01	.4100-01	.0000	.6990-03	.8439-03	.0000	.5190	4.340	531.6
2	8.0000	.15000	355.00	.2600-01	.3200-01	.0000	.5383-03	.6497-03	.0000	.4000	3.280	531.0
2	8.0000	.17500	356.00	.3100-01	.3700-01	.0000	.6320-03	.7631-03	.0000	.4690	3.380	531.9
2	8.0000	.20000	357.00	.2400-01	.2900-01	.0000	.4954-03	.5979-03	.0000	.3680	3.150	530.9
71	9.0000	.61900-01	161.00	.1500-01	.1800-01	.0000	.3008-03	.3627-03	.0000	.2230	1.890	523.0
71	9.0000	.70900-01	162.00	.1300-01	.1600-01	.0000	.2735-03	.3299-03	.0000	.2020	2.150	524.0
71	9.0000	.80700-01	163.00	.1200-01	.1500-01	.0000	.2470-03	.2977-03	.0000	.1830	1.500	522.0
71	9.0000	.94300-01	164.00	.1200-01	.1400-01	.0000	.2364-03	.2849-03	.0000	.1750	1.350	521.8
71	9.0000	.97800-01	165.00	.9000-02	.1000-01	.0000	.1745-03	.2103-03	.0000	.1290	1.030	521.8
71	9.0000	.10130	166.00	.7000-02	.9000-02	.0000	.1480-03	.1783-03	.0000	.1100	.8600	521.3
71	10.000	.61900-01	167.00	.2300-01	.2800-01	.0000	.4677-03	.5640-03	.0000	.3460	2.570	523.3
71	10.000	.70900-01	168.00	.1800-01	.2200-01	.0000	.3690-03	.4449-03	.0000	.2730	2.620	523.4
71	10.000	.80700-01	169.00	.1500-01	.1800-01	.0000	.2991-03	.3606-03	.0000	.2220	1.830	522.8
71	10.000	.94300-01	170.00	.1600-01	.1900-01	.0000	.3225-03	.3890-03	.0000	.2390	1.920	524.0
71	10.000	.97800-01	171.00	.1400-01	.1700-01	.0000	.2910-03	.3509-03	.0000	.2150	1.800	523.2
71	10.000	.10130	172.00	.1200-01	.1400-01	.0000	.2350-03	.2833-03	.0000	.1740	1.340	522.4
71	11.000	.80700-01	173.00	.9000-02	.1000-01	.0000	.1753-03	.2113-03	.0000	.1300	.9800	522.1
71	11.000	.94300-01	174.00	.6000-02	.7000-02	.0000	.1178-03	.1420-03	.0000	.8700-01	.7700	521.6
71	11.000	.97800-01	175.00	.7000-02	.8000-02	.0000	.1403-03	.1698-03	.0000	.1050	.7300	521.1
71	11.000	.10130	176.00	.6000-02	.7000-02	.0000	.1166-03	.1405-03	.0000	.8700-01	.6400	521.0

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	9.0000	.61900-01	161.00	.1500-01	.1800-01	.0000	.1577-03	.1921-03	.0000	.1050	.8900	523.6
22	9.0000	.70900-01	162.00	.1500-01	.1800-01	.0000	.1575-03	.1919-03	.0000	.1050	1.110	523.2
22	9.0000	.80700-01	163.00	.1300-01	.1600-01	.0000	.1359-03	.1655-03	.0000	.9000-01	.7400	522.6
22	9.0000	.94300-01	164.00	.1200-01	.1400-01	.0000	.1224-03	.1490-03	.0000	.8100-01	.6300	522.1
22	9.0000	.97800-01	165.00	.9000-02	.1100-01	.0000	.9338-04	.1137-03	.0000	.6200-01	.5000	522.3
22	9.0000	.10130	166.00	.7000-02	.9000-02	.0000	.7542-04	.9181-04	.0000	.5000-01	.3900	522.0
22	10.000	.61900-01	167.00	.2200-01	.2700-01	.0000	.2303-03	.2805-03	.0000	.1530	1.140	523.2
22	10.000	.70900-01	168.00	.1600-01	.2000-01	.0000	.1717-03	.2090-03	.0000	.1140	1.090	523.1
22	10.000	.80700-01	169.00	.1200-01	.1500-01	.0000	.1281-03	.1559-03	.0000	.8500-01	.7000	522.5
22	10.000	.94300-01	170.00	.1100-01	.1400-01	.0000	.1185-03	.1443-03	.0000	.7900-01	.6300	523.1
22	10.000	.97800-01	171.00	.1100-01	.1300-01	.0000	.1118-03	.1362-03	.0000	.7400-01	.6200	523.0
22	10.000	.10130	172.00	.8000-02	.1000-01	.0000	.8806-04	.1072-03	.0000	.5800-01	.4500	523.0
22	11.000	.80700-01	173.00	.1000-01	.1200-01	.0000	.1016-03	.1238-03	.0000	.6700-01	.5100	523.7
22	11.000	.94300-01	174.00	.7000-02	.9000-02	.0000	.7386-04	.8996-04	.0000	.4900-01	.4300	523.4
22	11.000	.97800-01	175.00	.9000-02	.1000-01	.0000	.8960-04	.1091-03	.0000	.5900-01	.4200	523.1
22	11.000	.10130	176.00	.7000-02	.8000-02	.0000	.6926-04	.8434-04	.0000	.4600-01	.3400	523.0

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01
4	7.970	24.96	338.3	1279.	93.30	.3550-01	1.579	3774.	.1027-02	.7508-07	1.600	.2043-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01
4	.2123-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
4	2.0000	.10000-02	273.00	.6510	.8010	.6550	.1330-01	.1636-01	.1338-01	9.101	73.49	594.6
4	2.0000	.18000-02	274.00	.6090	.7480	.6100	.1245-01	.1528-01	.1245-01	8.578	68.68	589.5
4	2.0000	.41000-02	275.00	.5490	.6730	.5520	.1121-01	.1376-01	.1128-01	7.750	60.99	587.4
4	2.0000	.70000-02	276.00	.5020	.6140	.5170	.1025-01	.1254-01	.1056-01	7.171	56.06	579.1
4	2.0000	.10300-01	277.00	.4530	.5530	.4710	.9247-02	.1131-01	.9616-02	6.493	51.01	576.5
4	2.0000	.15100-01	278.00	.4570	.5580	.4810	.9347-02	.1140-01	.9834-02	6.628	51.51	569.6
4	2.0000	.19900-01	279.00	.2800	.3410	.2990	.5721-02	.6969-02	.6109-02	4.085	38.82	564.7
4	2.0000	.23200-01	280.00	.9000-01	.1080	.9600-01	.1833-02	.2217-02	.1967-02	1.354	14.39	540.0
4	2.0000	.26300-01	281.00	.2390	.2920	.2600	.4893-02	.5962-02	.5303-02	3.489	40.47	565.6
4	2.0000	.29900-01	282.00	.2470	.3000	.2690	.5043-02	.6137-02	.5494-02	3.617	34.72	561.5
4	2.0000	.33800-01	283.00	.2130	.2590	.2340	.4352-02	.5291-02	.4787-02	3.136	30.03	558.2
4	2.0000	.38100-01	284.00	.1940	.2360	.2150	.3969-02	.4821-02	.4399-02	2.870	27.64	555.5
4	2.0000	.41400-01	285.00	.1800	.2190	.2010	.3678-02	.4467-02	.4102-02	2.663	25.66	554.6
4	2.0000	.45200-01	286.00	.1740	.2110	.1960	.3554-02	.4312-02	.3995-02	2.587	23.93	550.8
4	2.0000	.50300-01	287.00	.1590	.1940	.1810	.3259-02	.3956-02	.3696-02	2.364	22.80	553.1
4	2.0000	.15000	289.00	.7300-01	.8800-01	.8600-01	.1489-02	.1800-02	.1762-02	1.101	8.200	539.0
4	2.0000	.20000	290.00	.5900-01	.7100-01	.7000-01	.1196-02	.1448-02	.1426-02	.8820	7.570	541.4
4	2.0000	.25000	291.00	.5200-01	.6300-01	.6300-01	.1070-02	.1294-02	.1283-02	.7900	6.460	540.0
4	2.0000	.30000	292.00	.4000-01	.4800-01	.4700-01	.8084-03	.9771-03	.9691-03	.5990	4.860	538.1
4	2.0000	.35000	293.00	.5300-01	.6400-01	.6300-01	.1077-02	.1305-02	.1294-02	.7870	6.710	547.6

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA02)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
4	2.0000	.40000	294.00	.5100-01	.6200-01	.6200-01	.1048-02	.1270-02	.1260-02	.7670	6.180	547.3
4	2.0000	.45000	295.00	.5200-01	.6300-01	.6200-01	.1057-02	.1280-02	.1269-02	.7750	5.910	545.1
4	3.0000	.80000-03	145.00	.4250	.5180	.0000	.8681-02	.1059-01	.0000	6.167	45.24	568.3
4	3.0000	.23000-02	146.00	.4400	.5370	.0000	.8993-02	.1097-01	.0000	6.399	46.05	567.4
4	3.0000	.43000-02	147.00	.3320	.4030	.0000	.6782-02	.8243-02	.0000	4.895	36.11	557.0
4	3.0000	.68000-02	148.00	.2630	.3190	.0000	.5372-02	.6515-02	.0000	3.918	28.08	549.5
4	3.0000	.95000-02	149.00	.2080	.2510	.0000	.4243-02	.5132-02	.0000	3.131	21.70	540.7
4	3.0000	.12200-01	150.00	.1930	.2340	.0000	.3952-02	.4783-02	.0000	2.910	20.33	542.5
4	3.0000	.21800-01	151.00	.1160	.1410	.0000	.2378-02	.2873-02	.0000	1.766	12.62	536.2
4	3.0000	.25100-01	152.00	.1250	.1510	0000	.2549-02	.3079-02	.0000	1.893	14.03	535.9
4	3.0000	.28500-01	153.00	.1080	.1310	.0000	.2216-02	.2677-02	.0000	1.645	13.53	536.3
4	3.0000	.35400-01	155.00	.9700-01	.1180	.0000	.1992-02	.2406-02	.0000	1.480	11.83	535.4
4	3.0000	.38700-01	156.00	.9400-01	.1140	.0000	.1930-02	.2330-02	.0000	1.436	11.60	534.6
4	3.0000	.42000-01	157.00	.9000-01	.1080	.0000	.1835-02	.2216-02	.0000	1.365	11.15	534.8
4	3.0000	.46200-01	158.00	.8900-01	.1070	.0000	.1810-02	.2185-02	.0000	1.346	11.00	534.8
4	3.0000	.50300-01	159.00	.8200-01	.9900-01	.0000	.1667-02	.2014-02	.0000	1.240	11.10	535.1
4	3.0000	.55500-01	160.00	.7800-01	.9400-01	.0000	.1591-02	.1921-02	.0000	1.182	11.26	535.4
3	9.0000	.61900-01	161.00	.1400-01	.1700-01	.0000	.2920-03	.3511-03	.0000	.2220	1.890	518.9
3	9.0000	.70900-01	162.00	.1500-01	.1800-01	.0000	.3073-03	.3697-03	.0000	.2330	2.480	520.0
3	9.0000	.80700-01	163.00	.1300-01	.1600-01	.0000	.2554-03	.3190-03	.0000	.2020	1.650	518.0
3	9.0000	.94300-01	164.00	.1300-01	.1600-01	.0000	.2685-03	.3228-03	.0000	.2040	1.570	518.8
3	9.0000	.97800-01	165.00	.1000-01	.1200-01	.0000	.2024-03	.2434-03	.0000	.1530	1.230	519.5
3	9.0000	.10130	166.00	.8000-02	.9000-02	.0000	.1586-03	.1908-03	.0000	.1200	.9400	519.9
3	10.000	.61900-01	167.00	.2400-01	.2900-01	.0000	.4654-03	.5840-03	.0000	.3670	2.730	520.3
3	10.000	.70900-01	168.00	.1900-01	.2300-01	.0000	.3902-03	.4695-03	.0000	.2950	2.830	521.7
3	10.000	.80700-01	169.00	.1600-01	.1900-01	.0000	.3194-03	.3842-03	.0000	.2420	2.010	520.0
3	10.000	.94300-01	170.00	.1700-01	.2100-01	.0000	.3496-03	.4207-03	.0000	.2640	2.130	521.9
3	10.000	.97800-01	171.00	.1600-01	.1900-01	.0000	.3245-03	.3906-03	.0000	.2450	2.040	522.6
3	10.000	.10130	172.00	.1300-01	.1500-01	.0000	.2589-03	.3117-03	.0000	.1960	1.510	522.5
3	11.000	.80700-01	173.00	.1000-01	.1300-01	.0000	.2137-03	.2572-03	.0000	.1620	1.220	521.6
3	11.000	.94300-01	174.00	.7000-02	.8000-02	.0000	.1433-03	.1724-03	.0000	.1080	.9600	522.4
3	11.000	.97800-01	175.00	.8000-02	.1000-01	.0000	.1716-03	.2065-03	.0000	.1300	.9100	522.5
3	11.000	.10130	176.00	.7000-02	.8000-02	.0000	.1419-03	.1708-03	.0000	.1070	.7900	522.3

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
23	7.880	29.97	86.56	1193.	88.90	.9780-02	.4250	3642.	.2970-03	.7152-07	.4700	.1048-01
24	7.880	29.98	86.69	1198.	89.30	.9790-02	.4260	3649.	.2962-03	.7182-07	.4680	.1049-01
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
23	.3919-01
24	.3926-01
44	.3873-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
24	1.0000	.00000	367.00	.5270	.6470	.0000	.5526-02	.6789-02	.0000	3.558	29.99	553.8
24	1.0000	.80000-03	368.00	.3870	.4730	.0000	.4058-02	.4964-02	.0000	2.662	20.91	541.6
24	1.0000	.19000-02	369.00	.2090	.2550	.0000	.2191-02	.2674-02	.0000	1.454	12.42	534.2
24	1.0000	.37000-02	370.00	.1460	.1770	.0000	.1529-02	.1862 02	.0000	1.024	8.430	527.9
24	1.0000	.87000-02	372.00	.7400-01	.9000-01	.0000	.7751-03	.9428-03	.0000	.5220	4.380	524.4
24	1.0000	.11800-01	373.00	.5200-01	.6300-01	.0000	.5441-03	.6614-03	.0000	.3670	2.820	522.5
24	1.0000	.15100-01	374.00	.4100-01	.5000-01	.0000	.4286-03	.5210-03	.0000	.2900	2.230	522.0
24	1.0000	.18200-01	375.00	.3500-01	.4200-01	.0000	.3645-03	.4430-03	.0000	.2460	1.810	521.6
24	1.0000	.21500-01	376.00	.2500-01	.3000-01	.0000	.2572-03	.3125-03	.0000	.1740	1.330	521.0
24	1.0000	.24600-01	377.00	.2600-01	.3100-01	.0000	.2718-03	.3302-03	.0000	.1840	1.440	520.5
24	1.0000	.27800-01	378.00	.2000-01	.2400-01	.0000	.2063-03	.2507-03	.0000	.1400	1.210	520.6
24	1.0000	.60900-01	379.00	.1800-01	.2200-01	.0000	.1893-03	.2300-03	.0000	.1280	1.050	520.5
24	1.0000	.64600-01	380.00	.1300-01	.1600-01	.0000	.1360-03	.1651-03	.0000	.9200-01	.9000	519.3
24	1.0000	.68400-01	381.00	.1500-01	.1800-01	.0000	.1540-03	.1870-03	.0000	.1040	.8100	519.3
24	1.0000	.72100-01	382.00	.1300-01	.1600-01	.0000	.1343-03	.1630-03	.0000	.9100-01	.7000	519.2
24	1.0000	.79100-01	384.00	.1200-01	.1400-01	.0000	.1245-03	.1512-03	.0000	.8400-01	.6100	519.1
24	1.0000	.94300-01	385.00	.9000-02	.1100-01	.0000	.9806-04	.1191-03	.0000	.6700-01	.5200	518.9
24	1.0000	.97800-01	386.00	.9000-02	.1100-01	.0000	.9847-04	.1196-03	.0000	.6700-01	.5700	518.8

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
24	1.0000	.10190	387.00	.9000-02	.1200-01	.0000	.9951-04	.1208-03	.0000	.6800-01	.5500	519.4
24	1.0000	.11600	388.00	.9000-02	.1100-01	.0000	.9480-04	.1152-03	.0000	.6400-01	.6800	519.9
24	1.0000	.11950	389.00	.1300-01	.1600-01	.0000	.1410-03	.1713-03	.0000	.9600-01	.6600	519.6
24	1.0000	.12680	391.00	.1000-01	.1200-01	.0000	.1050-03	.1275-03	.0000	.7100-01	.4500	519.0
24	1.0000	.13050	392.00	.1300-01	.1500-01	.0000	.1332-03	.1618-03	.0000	.9000-01	.5300	518.7
24	1.0000	.13380	393.00	.1200-01	.1500-01	.0000	.1268-03	.1540-03	.0000	.8600-01	.5100	520.5
24	1.0000	.13760	394.00	.1300-01	.1600-01	.0000	.1351-03	.1640-03	.0000	.9200-01	.5500	518.9
24	1.0000	.14110	395.00	.1200-01	.1400-01	.0000	.1212-03	.1472-03	.0000	.8200-01	.5500	518.8
24	1.0000	.14480	396.00	.1200-01	.1500-01	.0000	.1266-03	.1538-03	.0000	.8600-01	.5800	519.0
24	1.0000	.14830	397.00	.1300-01	.1500-01	.0000	.1334-03	.1620-03	.0000	.9100-01	.6200	519.0
24	1.0000	.15190	398.00	.1600-01	.1900-01	.0000	.1638-03	.1990-03	.0000	.1110	.8000	519.3
24	1.0000	.15560	399.00	.1800-01	.2200-01	.0000	.1877-03	.2279-03	.0000	.1270	.9600	519.7
24	1.0000	.15920	400.00	.4600-01	.5500-01	.0000	.4788-03	.5819-03	.0000	.3240	2.410	521.3
24	1.0000	.16080	401.00	.5100-01	.6200-01	.0000	.5354-03	.6511-03	.0000	.3610	2.800	523.3
24	1.0000	.16350	402.00	.5400-01	.6600-01	.0000	.5664-03	.6889-03	.0000	.3810	3.070	524.6
24	1.0000	.16640	403.00	.5900-01	.7200-01	.0000	.6199-03	.7537-03	.0000	.4180	3.460	523.2
24	2.0000	.00000	367.00	.5270	.6470	.0000	.5526-02	.6789-02	.0000	3.558	29.99	553.8
23	2.0000	.10000-02	273.00	.6230	.7690	.6310	.6526-02	.8041-02	.6612-02	4.130	33.94	559.7
23	2.0000	.18000-02	274.00	.6240	.7690	.6270	.6541-02	.8054-02	.6569-02	4.153	33.78	557.8
23	2.0000	.41000-02	275.00	.5670	.6980	.5680	.5938-02	.7310-02	.5948-02	3.772	30.13	557.5
23	2.0000	.70000-02	276.00	.5350	.6580	.5450	.5603-02	.6889-02	.5710-02	3.580	28.34	553.8
23	2.0000	.10300-01	277.00	.4930	.6050	.5060	.5161-02	.6343-02	.5300-02	3.305	26.28	552.4
23	2.0000	.15100-01	278.00	.5110	.6270	.5300	.5354-02	.6574-02	.5556-02	3.442	27.02	549.8
23	2.0000	.19900-01	279.00	.3090	.3790	.3250	.3237-02	.3969-02	.3404-02	2.094	20.08	546.0
23	2.0000	.23200-01	280.00	.1100	.1340	.1160	.1149-02	.1402-02	.1215-02	.7600	8.110	531.3
23	2.0000	.26300-01	281.00	.2730	.3350	.2910	.2861-02	.3509-02	.3050-02	1.847	21.63	546.9
23	2.0000	.29300-01	282.00	.2800	.3430	.3000	.2937-02	.3598-02	.3147-02	1.906	18.46	543.8
23	2.0000	.33800-01	283.00	.2470	.3020	.2670	.2584-02	.3163-02	.2794-02	1.682	16.24	541.6
23	2.0000	.38100-01	284.00	.2260	.2770	.2460	.2368-02	.2897-02	.2581-02	1.546	15.01	539.8
23	2.0000	.41400-01	285.00	.2130	.2610	.2340	.2234-02	.2733-02	.2449-02	1.459	14.17	539.5
23	2.0000	.45200-01	286.00	.2100	.2570	.2320	.2198-02	.2687-02	.2429-02	1.441	13.42	537.2
23	2.0000	.50300-01	287.00	.1940	.2370	.2160	.2029-02	.2482-02	.2262-02	1.327	12.89	538.6
23	2.0000	.15000	289.00	.9800-01	.1130	.1140	.1025-02	.1250-02	.1195-02	.6810	5.090	528.8
23	2.0000	.20000	290.00	.7800-01	.9500-01	.9100-01	.8154-03	.9942-03	.9570-03	.5410	4.670	529.5
23	2.0000	.25000	291.00	.7000-01	.8600-01	.8300-01	.7377-03	.8999-03	.8721-03	.4880	4.010	531.1
23	2.0000	.30000	292.00	.5400-01	.6600-01	.6400-01	.5643-03	.6881-03	.6669-03	.3740	3.050	529.8
23	2.0000	.35000	293.00	.7100-01	.8700-01	.8400-01	.7442-03	.9089-03	.8806-03	.4900	4.200	534.5
23	2.0000	.40000	294.00	.6600-01	.8100-01	.7900-01	.6963-03	.8505-03	.8240-03	.4580	3.710	534.8
23	2.0000	.45000	295.00	.5900-01	.7200-01	.7000-01	.6217-03	.7591-03	.7355-03	.4100	3.140	533.8
24	3.0000	.00000	367.00	.5270	.6470	.0000	.5526-02	.6789 02	.0000	3.558	29.99	553.8
23	3.0000	.80000-03	145.00	.3900	.4780	.0000	.4082-02	.5003-02	.0000	2.645	19.64	544.7
23	3.0000	.23000-02	146.00	.4090	.5010	.0000	.4280-02	.5245-02	.0000	2.776	20.21	544.1
23	3.0000	.43000-02	147.00	.3120	.3820	.0000	.3268-02	.3999-02	.0000	2.133	15.87	540.1

OH103A.AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA03)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
23	3.0000	.68000-02	148.00	.2450	.3000	.0000	.2572-02	.3142-02	.0000	1.691	12.21	535.1
23	3.0000	.95000-02	149.00	.2180	.2660	.0000	.2281-02	.2783-02	.0000	1.508	10.50	531.3
23	3.0000	.12200-01	150.00	.1910	.2340	.0000	.2005-02	.2447-02	.0000	1.325	9.310	531.9
23	3.0000	.21800-01	151.00	.1110	.1350	.0000	.1164-02	.1420-02	.0000	.7730	5.540	529.3
23	3.0000	.25100-01	152.00	.1210	.1480	.0000	.1268-02	.1546-02	.0000	.8410	6.250	529.5
23	3.0000	.28600-01	153.00	.1080	.1310	.0000	.1130-02	.1378-02	.0000	.7490	6.180	529.7
23	3.0000	.35400-01	155.00	.9900-01	.1200	.0000	.1033-02	.1259-02	.0000	.6860	5.500	528.9
23	3.0000	.38700-01	156.00	.9400-01	.1140	.0000	.9798-03	.1194-02	.0000	.6510	5.270	528.5
23	3.0000	.42000-01	157.00	.8900-01	.1080	.0000	.9311-03	.1135-02	.0000	.6180	5.070	528.5
23	3.0000	.46200-01	158.00	.9500-01	.1160	.0000	.9932-03	.1211-02	.0000	.6600	5.410	528.4
23	3.0000	.50300-01	159.00	.8200-01	.1000+00	.0000	.8570-03	.1045-02	.0000	.5690	5.120	528.3
24	4.0000	.50000-01	297.00	.1130	.1380	.0000	.1186-02	.1444-02	.0000	.7940	6.660	527.8
24	4.0000	.75000-01	298.00	.8300-01	.1020	.0000	.8747-03	.1065-02	.0000	.5860	4.880	527.6
24	4.0000	.10000+00	299.00	.6700-01	.8100-01	.0000	.7021-03	.8545-03	.0000	.4720	3.810	526.0
24	4.0000	.12500	300.00	.5000-01	.6100-01	.0000	.5283-03	.6427-03	.0000	.3560	3.170	524.7
24	4.0000	.15000	301.00	.5200-01	.6300-01	.0000	.5462-03	.6645-03	.0000	.3670	2.950	524.9
24	4.0000	.20000	303.00	.4800-01	.5800-01	.0000	.5014-03	.6096-03	.0000	.3390	2.720	522.5
24	4.0000	.22500	304.00	.2500-01	.3000-01	.0000	.2612-03	.3176-03	.0000	.1760	1.930	523.5
24	4.0000	.25000	305.00	.1600-01	.1900-01	.0000	.1675-03	.2036-03	.0000	.1130	.9000	521.5
24	4.0000	.32500	307.00	.2000-02	.2000-02	.0000	.1951-04	.2370-04	.0000	.1300-01	.1200	520.3
24	4.0000	.37500	308.00	.2000-02	.3000-02	.0000	.2522-04	.3065-04	.0000	.1700-01	.1300	521.5
24	4.0000	.42500	309.00	.3000-02	.3000-02	.0000	.2868-04	.3484-04	.0000	.1900-01	.1500	520.3
24	5.0000	.20000	311.00	.2400-01	.2900-01	.0000	.2531-03	.3075-03	.0000	.1710	1.690	520 5
24	5.0000	.22500	312.00	.2100-01	.2500-01	.0000	.2198-03	.2670-03	.0000	.1490	1.340	520.7
24	5.0000	.25000	313.00	.1700-01	.2000-01	.0000	.1734-03	.2106-03	.0000	.1170	.9000	520.0
24	5.0000	.27500	314.00	.1600-01	.1900-01	.0000	.1631-03	.1982-03	.0000	.1110	.8900	520.0
24	5.0000	.30000	315.00	.2900-01	.3500-01	.0000	.3010-03	.3657-03	.0000	.2040	1.490	520.9
24	5.0000	.32500	316.00	.1900-01	.2300-01	.0000	.2021-03	.2455-03	.0000	.1370	1.100	521.0
24	5.0000	.35000	317.00	.2000-01	.2500-01	.0000	.2132-03	.2590-03	.0000	.1440	1.050	520.3
24	5.0000	.37500	318.00	.7000-02	.9000-02	.0000	.7568-04	.9195-04	.0000	.5100-01	.3800	520.7
24	5.0000	.40000	319.00	.5000-02	.6000-02	.0000	.5117-04	.6216-04	.0000	.3500-01	.2800	520.4
24	5.0000	.47500	322.00	.4000-02	.4000-02	.0000	.3829-04	.4649-04	.0000	.2600-01	.2300	518.0
24	6.0000	.20000	323.00	.2400-01	.2900-01	.0000	.2521-03	.3065-03	.0000	.1700	1.480	522.6
24	6.0000	.22500	324.00	.2800-01	.3400-01	.0000	.2905-03	.3531-03	.0000	.1960	1.650	522.5
24	6.0000	.27500	326.00	.1400-01	.1700-01	.0000	.1488-03	.1808-03	.0000	.1010	.8700	521.1
24	6.0000	.30000	327.00	.1100-01	.1400-01	.0000	.1195-03	.1452-03	.0000	.8100-01	.6400	520.4
24	6.0000	.32500	328.00	.2200-01	.2700-01	.0000	.2339-03	.2843-03	.0000	.1580	1.430	521.8
24	6.0000	.35000	329.00	.3800-01	.4600-01	.0000	.3986-03	.4846-03	.0000	.2690	1.980	522.7
24	6.0000	.37500	330.00	.2500-01	.2500-01	.0000	.2198-03	.2673-03	.0000	.1480	1.190	522.6
24	6.0000	.42500	332.00	.1000-01	.1300-01	.0000	.1097-03	.1333-03	.0000	.7400-01	.6100	520.4
24	7.0000	.22500	334.00	.2300-01	.2800-01	.0000	.2378-03	.2891-03	.0000	.1610	1.420	521.9
24	7.0000	.27500	336.00	.1100-01	.1300-01	.0000	.1126-03	.1368-03	.0000	.7600-01	.6600	521.1
24	7.0000	.30000	337.00	.1300-01	.1600-01	.0000	.1380-03	.1677-03	.0000	.9300-01	.6800	520.6

OH103A.AEDC V418-V2. ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
24	7.0000	.32500	338.00	.1100-01	.1300-01	.0000	.1158-03	.1407-03	.0000	.7800-01	.6600	520.5
24	7.0000	.35000	339.00	.2000-01	.2400-01	.0000	.2071-03	.2516-03	.0000	.1400	1.050	520.4
24	7.0000	.40000	341.00	.2500-01	.3000-01	.0000	.2625-03	.3192-03	.0000	.1770	1.430	523.6
24	7.0000	.45000	343.00	.1900-01	.2300-01	.0000	.1983-03	.2410-03	.0000	.1340	1.090	522.5
24	8.0000	.50000-01	351.00	.6900-01	.8400-01	.0000	.7263-03	.8844-03	.0000	.4870	4.030	527.6
24	8.0000	.75000-01	352.00	.5100-01	.6200-01	.0000	.5328-03	.6478-03	.0000	.3600	3.010	522.8
24	8.0000	.12500	354.00	.3400-01	.4100-01	.0000	.3540-03	.4304-03	.0000	.2390	2.010	522.8
24	8.0000	.15000	355.00	.2800-01	.3400-01	.0000	.2956-03	.3595-03	.0000	.1990	1.640	523.6
24	8.0000	.17500	356.00	.3200-01	.3900-01	.0000	.3332-03	.4053-03	.0000	.2240	1.620	524.6
24	8.0000	.20000	357.00	.3000-01	.3600-01	.0000	.3104-03	.3775-03	.0000	.2090	1.800	524.3
44	9.0000	.61900-01	161.00	.1200-01	.1400-01	.0000	.1216-03	.1480-03	.0000	.8000-01	.6800	517.4
44	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.1072-03	.1304-03	.0000	.7100-01	.7500	517.6
44	9.0000	.80700-01	163.00	.1000-01	.1300-01	.0000	.1099-03	.1338-03	.0000	.7300-01	.6000	516.5
44	9.0000	.94300-01	164.00	.1000-01	.1200-01	.0000	.1068-03	.1300-03	.0000	.7100-01	.5500	516.0
44	9.0000	.97800-01	165.00	.8000-02	.1000-01	.0000	.8600-04	.1046-03	.0000	.5700-01	.4600	516.6
44	9.0000	.10130	166.00	.7000-02	.8000-02	.0000	.7039-04	.8563-04	.0000	.4700-01	.3700	516.2
44	10.000	.61900-01	167.00	.1300-01	.1600-01	.0000	.1397-03	.1699-03	.0000	.9200-01	.6900	516.3
44	10.000	.70900-01	168.00	.1000-01	.1300-01	.0000	.1094-03	.1332-03	.0000	.7200-01	.7000	516.5
44	10.000	.80700-01	169.00	.8000-02	.1000-01	.0000	.8734-04	.1062-03	.0000	.5800-01	.4800	515.6
44	10.000	.94300-01	170.00	.9000-02	.1100-01	.0000	.9074-04	.1104-03	.0000	.6000-01	.4800	516.3
44	10.000	.97800-01	171.00	.8000-02	.1000-01	.0000	.8813-04	.1072-03	.0000	.5800-01	.4900	516.2
44	10.000	.10130	172.00	.7000-02	.6000-02	.0000	.7082-04	.8616-04	.0000	.4700-01	.3600	516.0
44	11.000	.80700-01	173.00	.6000-02	.8000-02	.0000	.6735-04	.8193-04	.0000	.4500-01	.3400	516.0
44	11.000	.94300-01	174.00	.5000-02	.6000-02	.0000	.4618-04	.5860-04	.0000	.3200-01	.2800	515.7
44	11.000	.97800-01	175.00	.6000-02	.7000-02	.0000	.5946-04	.7232-04	.0000	.3900-01	.2800	515.3
44	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.4826-04	.5869-04	.0000	.3200-01	.2400	515.3

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
49	7.930	30.00	165.0	1231.	90.60	.1790-01	.7880	3701.	.5327-03	.7294-07	.8400	.1434-01
50	7.930	29.99	165.5	1227.	90.30	.1790-01	.7900	3695.	.5361-03	.7270-07	.8470	.1435-01
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
49	.2936-01
50	.2926-01
51	.2926-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
50	1.0000	.00000	367.00	.5290	.6490	.0000	.7591-02	.9318-02	.0000	5.025	42.12	564.8
50	1.0000	.80000-03	368.00	.3890	.4760	.0000	.5588-02	.6825-02	.0000	3.781	29.57	550.0
50	1.0000	.19000-02	369.00	.2100	.2550	.0000	.3009-02	.3661-02	.0000	2.074	17.69	537.6
50	1.0000	.37000-02	370.00	.1430	.1730	.0000	.2051-02	.2489-02	.0000	1.430	11.76	529.5
50	1.0000	.87000-02	372.00	.7600-01	.9200-01	.0000	.1085-02	.1315-02	.0000	.7620	6.400	524.2
50	1.0000	.11800-01	373.00	.5500-01	.6700-01	.0000	.7960-03	.9636-03	.0000	.5620	4.320	521.3
50	1.0000	.15100-01	374.00	.4400-01	.5300-01	.0000	.6338-03	.7671-03	.0000	.4470	3.440	521.0
50	1.0000	.18200-01	375.00	.3800-01	.4600-01	.0000	.5487-03	.6639-03	.0000	.3880	2.860	519.5
50	1.0000	.21500-01	376.00	.2800-01	.3400-01	.0000	.4047-03	.4895-03	.0000	.2870	2.190	518.7
50	1.0000	.24600-01	377.00	.2800-01	.3400-01	.0000	.4090-03	.4946-03	.0000	.2900	2.270	517.9
50	1.0000	.27800-01	378.00	.2200-01	.2600-01	.0000	.3102-03	.3752-03	.0000	.2200	1.900	518.5
50	1.0000	.60900-01	379.00	.1900-01	.2300-01	.0000	.2734-03	.3305-03	.0000	.1940	1.590	517.0
50	1.0000	.64600-01	380.00	.1300-01	.1600-01	.0000	.1932-03	.2335-03	.0000	.1370	1.350	515.6
50	1.0000	.68400-01	381.00	.1500-01	.1800-01	.0000	.2187-03	.2643-03	.0000	.1560	1.210	515.4
50	1.0000	.72100-01	382.00	.1300-01	.1600-01	.0000	.1864-03	.2253-03	.0000	.1330	1.020	515.3
50	1.0000	.79100-01	384.00	.9000-02	.1100-01	.0000	.1305-03	.1577-03	.0000	.9300-01	.6700	515.6
50	1.0000	.94300-01	385.00	.9000-02	.1100-01	.0000	.1311-03	.1584-03	.0000	.9300-01	.7300	515.3
50	1.0000	.97800-01	386.00	.9000-02	.1100-01	.0000	.1294-03	.1564-03	.0000	.9200-01	.7900	515.0

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA03)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
50	1.0000	.10190	387.00	.9000-02	.1100-01	.0000	.1320-03	.1595-03	.0000	.9400-01	.7700	515.6
50	1.0000	.11600	388.00	.1100-01	.1300-01	.0000	.1575-03	.1903-03	.0000	.1120	1.190	515.7
50	1.0000	.11950	389.00	.1200-01	.1500-01	.0000	.1780-03	.2151-03	.0000	.1270	.8800	515.6
50	1.0000	.12680	391.00	.1500-01	.1800-01	.0000	.2130-03	.2574-03	.0000	.1520	.9600	515.0
50	1.0000	.13050	392.00	.1400-01	.1600-01	.0000	.1954-03	.2361-03	.0000	.1390	.8200	515.1
50	1.0000	.13380	393.00	.1600-01	.1900-01	.0000	.2265-03	.2737-03	.0000	.1610	.9600	515.1
50	1.0000	.13760	394.00	.1300-01	.1500-01	.0000	.1827-03	.2208-03	.0000	.1300	.7800	515.4
50	1.0000	.14110	395.00	.1500-01	.1900-01	.0000	.2210-03	.2670-03	.0000	.1570	1.060	514.9
50	1.0000	.14480	396.00	.1600-01	.2000-01	.0000	.2341-03	.2829-03	.0000	.1670	1.130	515.1
50	1.0000	.14830	397.00	.1700-01	.2000-01	.0000	.2410-03	.2912-03	.0000	.1710	1.170	515.3
50	1.0000	.15190	398.00	.2200-01	.2700-01	.0000	.3192-03	.3857-03	.0000	.2270	1.630	515.7
50	1.0000	.15560	399.00	.2600-01	.3100-01	.0000	.3729-03	.4506-03	.0000	.2650	2.000	515.7
50	1.0000	.15820	400.00	.6700-01	.8100-01	.0000	.9607-03	.1163-02	.0000	.6780	5.060	520.6
50	1.0000	.16080	401.00	.6600-01	.8000-01	.0000	.9445-03	.1144-02	.0000	.6660	5.170	522.0
50	1.0000	.16350	402.00	.7000-01	.8400-01	.0000	.9977-03	.1208-02	.0000	.7020	5.660	523.5
50	1.0000	.16640	403.00	.7400-01	.9000-01	.0000	.1062-02	.1287-02	.0000	.7480	6.200	522.5
50	2.0000	.00000	367.00	.5290	.6490	.0000	.7591-02	.9318-02	.0000	5.025	42.12	564.8
49	2.0000	.10000-02	273.00	.6200	.7630	.6280	.8884-02	.1094-01	.9002-02	5.829	47.54	574.6
49	2.0000	.18000-02	274.00	.6110	.7510	.6130	.8756-02	.1077-01	.8793-02	5.765	46.55	572.2
49	2.0000	.41000-02	275.00	.5600	.6890	.5610	.8028-02	.9871-02	.8043-02	5.292	41.98	571.5
49	2.0000	.70000-02	276.00	.5320	.6530	.5420	.7625-02	.9359-02	.7769-02	5.066	39.86	566.2
49	2.0000	.10300-01	277.00	.4910	.6020	.5040	.7037-02	.8631-02	.7225-02	4.691	37.08	564.1
49	2.0000	.15100-01	278.00	.5070	.6210	.5250	.7264-02	.8837-02	.7534-02	4.869	38.02	560.3
49	2.0000	.19300-01	279.00	.3080	.3760	.3230	.4410-02	.5395-02	.4635-02	2.972	28.36	556.7
49	2.0000	.23200-01	280.00	.1070	.1300	.1130	.1535-02	.1863-02	.1621-02	1.074	11.46	531.5
49	2.0000	.26300-01	281.00	.2710	.3320	.2890	.3892-02	.4764-02	.4147-02	2.619	30.49	557.9
49	2.0000	.29900-01	282.00	.2780	.3400	.2980	.3987-02	.4872-02	.4268-02	2.702	26.05	553.0
49	2.0000	.33800-01	283.00	.2440	.2970	.2630	.3493-02	.4261-02	.3772-02	2.385	22.96	547.9
49	2.0000	.38100-01	284.00	.2220	.2710	.2420	.3186-02	.3883-02	.3466-02	2.184	21.14	545.2
49	2.0000	.41400-01	285.00	.2110	.2570	.2310	.3024-02	.3685-02	.3309-02	2.074	20.09	544.6
49	2.0000	.45200-01	286.00	.2060	.2510	.2280	.2960-02	.3604-02	.3264-02	2.040	18.96	541.5
49	2.0000	.50300-01	287.00	.1880	.2290	.2090	.2699-02	.3288-02	.3002-02	1.855	17.97	543.5
49	2.0000	.15000	289.00	.9500-01	.1160	.1110	.1367-02	.1659-02	.1588-02	.9580	7.170	530.0
49	2.0000	.20000	290.00	.8000-01	.9700-01	.9300-01	.1145-02	.1390-02	.1339-02	.8010	6.910	531.1
49	2.0000	.25000	291.00	.7100-01	.8600-01	.8400-01	.1021-02	.1239-02	.1202-02	.7120	5.840	533.0
49	2.0000	.30000	292.00	.5500-01	.6700-01	.6500-01	.7929-03	.9623-03	.9333-03	.5540	4.520	531.5
49	2.0000	.35000	293.00	.7100-01	.8600-01	.8400-01	.1019-02	.1240-02	.1202-02	.7040	6.030	539.5
49	2.0000	.40000	294.00	.6700-01	.8200-01	.8000-01	.9669-03	.1176-02	.1140-02	.6690	5.410	538.9
49	2.0000	.45000	295.00	.6200-01	.7600-01	.7300-01	.8910-03	.1083-02	.1050-02	.6180	4.730	536.8
50	3.0000	.00000	367.00	.5290	.6490	.0000	.7591-02	.9318-02	.0000	5.025	42.12	564.8
49	3.0000	.80000-03	145.00	.4190	.5120	.0000	.6007-02	.7341-02	.0000	4.067	30.05	553.7
49	3.0000	.23000-02	146.00	.4130	.5050	.0000	.5921-02	.7235-02	.0000	4.011	29.07	553.2
49	3.0000	.43000-02	147.00	.3150	.3840	.0000	.4521-02	.5510-02	.0000	3.101	23.02	544.8

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
49	3.0000	.68000-02	148.00	.2500	.3040	.0000	.3584-02	.4358-02	.0000	2.483	17.90	537.8
49	3.0000	.95000-02	149.00	.2080	.2530	.0000	.2987-02	.3626-02	.0000	2.086	14.51	532.5
49	3.0000	.12200-01	150.00	.1910	.2320	.0000	.2744-02	.3333-02	.0000	1.913	13.43	533.6
49	3.0000	.21800-01	151.00	.1120	.1360	.0000	.1611-02	.1954-02	.0000	1.131	8.120	528.6
49	3.0000	.25100-01	152.00	.1200	.1460	.0000	.1724-02	.2090-02	.0000	1.212	9.020	527.4
49	3.0000	.28600-01	153.00	.1090	.1320	.0000	.1559-02	.1890-02	.0000	1.096	9.050	527.7
49	3.0000	.35400-01	155.00	.1020	.1240	.0000	.1463-02	.1774-02	.0000	1.029	8.250	527.8
49	3.0000	.38700-01	156.00	.9400-01	.1140	.0000	.1351-02	.1638-02	.0000	.9510	7.720	526.7
49	3.0000	.42000-01	157.00	.9300-01	.1120	.0000	.1328-02	.1610-02	.0000	.9350	7.670	526.7
49	3.0000	.46200-01	158.00	.9400-01	.1140	.0000	.1347-02	.1633-02	.0000	.9490	7.780	526.5
49	3.0000	.50300-01	159.00	.8100-01	.9800-01	.0000	.1156-02	.1401-02	.0000	.8140	7.320	526.5
50	4.0000	.50000-01	297.00	.1120	.1360	.0000	.1614-02	.1957-02	.0000	1.128	9.460	527.4
50	4.0000	.75000-01	298.00	.8500-01	.1030	.0000	.1216-02	.1474-02	.0000	.8490	7.060	528.1
50	4.0000	.10000+00	299.00	.7100-01	.8500-01	.0000	.1014-02	.1229-02	.0000	.7110	5.760	525.0
50	4.0000	.12500	300.00	.5400-01	.6600-01	.0000	.7785-03	.9429-03	.0000	.5480	4.890	523.3
50	4.0000	.15000	301.00	.5500-01	.6700-01	.0000	.7897-03	.9565-03	.0000	.5550	4.470	523.3
50	4.0000	.20000	303.00	.5000-01	.6100-01	.0000	.7230-03	.8748-03	.0000	.5110	4.120	520.0
50	4.0000	.22500	304.00	.2800-01	.3300-01	.0000	.3956-03	.4788-03	.0000	.2790	3.070	520.2
50	4.0000	.25000	305.00	.1800-01	.2200-01	.0000	.2578-03	.3118-03	.0000	.1830	1.460	517.8
50	4.0000	.32500	307.00	.3000-02	.4000-02	.0000	.4775-04	.5771-04	.0000	.3400-01	.3100	516.0
50	4.0000	.37500	308.00	.2000-02	.2000-02	.0000	.2453-04	.2966-04	.0000	.1700-01	.1400	517.3
50	4.0000	.42500	309.00	.1000-02	.1000-02	.0000	.8322-05	.1006-04	.0000	.6000-02	.4000-01	515.5
50	5.0000	.20000	311.00	.2600-01	.3200-01	.0000	.3764-03	.4552-03	.0000	.2670	2.620	517.3
50	5.0000	.22500	312.00	.2500-01	.3000-01	.0000	.3556-03	.4299-03	.0000	.2520	2.280	517.2
50	5.0000	.25000	313.00	.1700-01	.2100-01	.0000	.2472-03	.2988-03	.0000	.1760	1.340	515.7
50	5.0000	.27500	314.00	.1700-01	.2000-01	.0000	.2381-03	.2877-03	.0000	.1690	1.370	515.4
50	5.0000	.30000	315.00	.3700-01	.4500-01	.0000	.5343-03	.6461-03	.0000	.3790	2.780	517.8
50	5.0000	.32500	316.00	.2700-01	.3300-01	.0000	.3893-03	.4706-03	.0000	.2760	2.240	516.6
50	5.0000	.35000	317.00	.7000-02	.8000-02	.0000	.9427-04	.1140-03	.0000	.6700-01	.4900	516.6
50	5.0000	.37500	318.00	.8000-02	.1000-01	.0000	.1136-03	.1373-03	.0000	.8100-01	.6000	516.1
50	5.0000	.40000	319.00	.5000-02	.6000-02	.0000	.7666-04	.9264-04	.0000	.5500-01	.4400	515.5
50	5.0000	.47500	322.00	.4000-02	.5000-02	.0000	.5583-04	.6740-04	.0000	.4000-01	.3500	511.8
50	6.0000	.20000	323.00	.2900-01	.3500-01	.0000	.4185-03	.5063-03	.0000	.2960	2.560	519.2
50	6.0000	.22500	324.00	.1700-01	.2100-01	.0000	.2478-03	.2998-03	.0000	.1750	1.410	519.1
50	6.0000	.27500	326.00	.1600-01	.1900-01	.0000	.2267-03	.2741-03	.0000	.1610	1.390	516.3
50	6.0000	.30000	327.00	.1300-01	.1600-01	.0000	.1936-03	.2339-03	.0000	.1380	1.090	515.2
50	6.0000	.32500	328.00	.2500-01	.3000-01	.0000	.3563-03	.4307-03	.0000	.2530	2.290	516.8
50	6.0000	.35000	329.00	.4300-01	.5200-01	.0000	.6207-03	.7510-03	.0000	.4390	3.240	519.6
50	6.0000	.37500	330.00	.3200-01	.3900-01	.0000	.4642-03	.5616-03	.0000	.3290	2.630	518.9
50	6.0000	.40000	331.00	.1400-01	.1700-01	.0000	.1999-03	.2417-03	.0000	.1420	1.190	516.8
50	6.0000	.42500	332.00	.1400-01	.1700-01	.0000	.2033-03	.2457-03	.0000	.1450	1.190	515.1
50	6.0000	.45000	333.00	.1400-01	.1700-01	.0000	.2040-03	.2465-03	.0000	.1450	1.200	514.1
50	7.0000	.22500	334.00	.2600-01	.3100-01	.0000	.3737-03	.4520-03	.0000	.2650	2.340	518.1

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
50	7.0000	.25000	335.00	.1900-01	.2300-01	.0000	.2715-03	.3282-03	.0000	.1930	1.510	516.9
50	7.0000	.27500	336.00	.2000-01	.2400-01	.0000	.2906-03	.3512-03	.0000	.2070	1.780	516.0
50	7.0000	.30000	337.00	.1500-01	.1800-01	.0000	.2127-03	.2571-03	.0000	.1510	1.110	515.5
50	7.0000	.32500	338.00	.1100-01	.1400-01	.0000	.1604-03	.1938-03	.0000	.1140	.9600	515.2
50	7.0000	.35000	339.00	.1900-01	.2300-01	.0000	.2779-03	.3359-03	.0000	.1980	1.480	516.0
50	7.0000	.40000	341.00	.4000-01	.4800-01	.0000	.5753-03	.6959-03	.0000	.4070	3.290	518.9
50	7.0000	.45000	343.00	.3000-01	.3600-01	.0000	.4299-03	.5198-03	.0000	.3050	2.500	517.2
50	8.0000	.50000-01	351.00	.1010	.1230	.0000	.1453-02	.1763-02	.0000	1.017	8.430	527.1
50	8.0000	.75000-01	352.00	.5500-01	.6600-01	.0000	.7821-03	.9467-03	.0000	.5520	4.620	521.0
50	8.0000	.12500	354.00	.4100-01	.5000-01	.0000	.5885-03	.7122-03	.0000	.4150	3.500	520.7
50	8.0000	.15000	355.00	.3400-01	.4100-01	.0000	.4833-03	.5849-03	.0000	.3410	2.820	520.2
50	8.0000	.17500	356.00	.4300-01	.5200-01	.0000	.6184-03	.7486-03	.0000	.4360	3.160	521.2
50	8.0000	.20000	357.00	.2700-01	.3300-01	.0000	.3946-03	.4776-03	.0000	.2790	2.400	520.7
51	9.0000	.61900-01	161.00	.1100-01	.1300-01	.0000	.1517-03	.1836-03	.0000	.1070	.9100	518.7
51	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.1434-03	.1735-03	.0000	.1010	1.070	518.7
51	9.0000	.80700-01	163.00	.9000-02	.1100-01	.0000	.1262-03	.1527-03	.0000	.8900-01	.7300	517.3
51	9.0000	.94300-01	164.00	.9000-02	.1100-01	.0000	.1330-03	.1609-03	.0000	.9400-01	.7300	516.7
51	9.0000	.97800-01	165.00	.7000-02	.8000-02	.0000	.9769-04	.1182-03	.0000	.6900-01	.5500	517.1
51	9.0000	.10130	166.00	.6000-02	.7000-02	.0000	.8292-04	.1003-03	.0000	.5800-01	.4600	516.8
51	10.000	.61900-01	167.00	.1100-01	.1400-01	.0000	.1635-03	.1979-03	.0000	.1150	.8600	517.9
51	10.000	.70900-01	168.00	.9000-02	.1100-01	.0000	.1334-03	.1614-03	.0000	.9400-01	.9000	517.7
51	10.000	.80700-01	169.00	.7000-02	.9000-02	.0000	.1040-03	.1258-03	.0000	.7300-01	.6100	516.5
51	10.000	.94300-01	170.00	.8000-02	.9000-02	.0000	.1105-03	.1337-03	.0000	.7800-01	.6300	517.0
51	10.000	.97800-01	171.00	.8000-02	.9000-02	.0000	.1088-03	.1316-03	.0000	.7700-01	.6400	516.8
51	10.000	.10130	172.00	.6000-02	.8000-02	.0000	.8946-04	.1082-03	.0000	.6300-01	.4900	516.7
51	11.000	.80700-01	173.00	.5000-02	.6000-02	.0000	.6625-04	.8015-04	.0000	.4700-01	.3500	517.1
51	11.000	.94300-01	174.00	.3000-02	.4000-02	.0000	.4685-04	.5667-04	.0000	.3300-01	.2900	516.4
51	11.000	.97800-01	175.00	.4000-02	.5000-02	.0000	.5480-04	.6627-04	.0000	.3900-01	.2700	515.9
51	11.000	.10130	176.00	.3000-02	.4000-02	.0000	.4242-04	.5129-04	.0000	.3000-01	.2200	515.9

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
5	7.970	29.98	338.1	1278.	93.20	.3550-01	1.578	3772.	.1027-02	.7502-07	1.610	.2043-01
6	7.970	29.98	337.5	1277.	93.20	.3540-01	1.575	3771.	.1026-02	.7497-07	1.600	.2040-01
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
5	.2123-01
6	.2123-01
72	.2123-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
6	1.0000	.00000	367.00	.5320	.6530	.0000	.1086-01	.1333-01	.0000	7.488	62.07	587.3
6	1.0000	.80000-03	368.00	.3850	.4690	.0000	.7848-02	.9566-02	.0000	5.580	43.30	565.6
6	1.0000	.19000-02	369.00	.2080	.2530	.0000	.4246-02	.5156-02	.0000	3.074	26.03	552.7
6	1.0000	.37000-02	370.00	.1400	.1700	.0000	.2862-02	.3463-02	.0000	2.106	17.21	540.8
6	1.0000	.87000-02	372.00	.7300-01	.8900-01	.0000	.1484-02	.1792-02	.0000	1.103	9.220	533.7
6	1.0000	.11800-01	373.00	.5200-01	.6300-01	.0000	.1069-02	.1289-02	.0000	.7970	6.100	531.0
6	1.0000	.15100-01	374.00	.4100-01	.5000-01	.0000	.8415-03	.1015-02	.0000	.6280	4.810	529.9
6	1.0000	.18200-01	375.00	.3300-01	.4000-01	.0000	.6779-03	.8173-03	.0000	.5070	3.720	528.4
6	1.0000	.21500-01	376.00	.2400-01	.2800-01	.0000	.4810-03	.5798-03	.0000	.3610	2.750	527.2
6	1.0000	.24600-01	377.00	.2500-01	.3000-01	.0000	.5078-03	.6122-03	.0000	.3800	2.970	527.6
6	1.0000	.27800-01	378.00	.1800-01	.2200-01	.0000	.3768-03	.4541-03	.0000	.2830	2.440	526.3
6	1.0000	.60900-01	379.00	.1600-01	.2000-01	.0000	.3359-03	.4045-03	.0000	.2530	2.070	524.3
6	1.0000	.64600-01	380.00	.1100-01	.1300-01	.0000	.2236-03	.2692-03	.0000	.1690	1.650	522.8
6	1.0000	.68400-01	381.00	.1200-01	.1500-01	.0000	.2481-03	.2987-03	.0000	.1870	1.450	522.7
6	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.2173-03	.2616-03	.0000	.1640	1.260	522 1
6	1.0000	.79100-01	384.00	.1000-01	.1200-01	.0000	.2055-03	.2473-03	.0000	.1550	1.120	522.0
6	1.0000	.94300-01	385.00	.8000-02	.1000-01	.0000	.1730-03	.2082-03	.0000	.1310	1.020	520.3
6	1.0000	.97800-01	386.00	.8000-02	.1000-01	.0000	.1655-03	.1991-03	.0000	.1250	1.060	520.6

OH103A,AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA03)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
6	1.0000	.10190	387.00	.9000-02	.1100-01	.0000	.1889-03	.2273-03	.0000	.1430	1.170	521.5
6	1.0000	.11600	388.00	.9000-02	.1100-01	.0000	.1837-03	.2211-03	.0000	.1390	1.470	521.5
6	1.0000	.11950	389.00	.1300-01	.1600-01	.0000	.2633-03	.3168-03	.0000	.1990	1.380	521.0
6	1.0000	.12680	391.00	.1100-01	.1400-01	.0000	.2325-03	.2798-03	.0000	.1760	1.110	520.8
6	1.0000	.13050	392.00	.1400-01	.1600-01	.0000	.2763-03	.3324-03	.0000	.2090	1.230	520.7
6	1.0000	.13380	393.00	.1500-01	.1800-01	.0000	.2980-03	.3587-03	.0000	.2250	1.340	522.4
6	1.0000	.13760	394.00	.1800-01	.2200-01	.0000	.3714-03	.4469-03	.0000	.2810	1.680	521.2
6	1.0000	.14110	395.00	.1400-01	.1700-01	.0000	.2883-03	.3469-03	.0000	.2180	1.470	521.2
6	1.0000	.14480	396.00	.1500-01	.1800-01	.0000	.3088-03	.3717-03	.0000	.2330	1.580	521.8
6	1.0000	.14830	397.00	.1500-01	.1800-01	.0000	.3110-03	.3743-03	.0000	.2350	1.590	521.6
6	1.0000	.15190	398.00	.2100-01	.2500-01	.0000	.4291-03	.5164-03	.0000	.3240	2.320	521.9
6	1.0000	.15560	399.00	.3000-01	.3600-01	.0000	.6046-03	.7278-03	.0000	.4560	3.440	522.3
6	1.0000	.15820	400.00	.7700-01	.9300-01	.0000	.1574-02	.1899-02	.0000	1.176	8.730	529.9
6	1.0000	.16080	401.00	.7800-01	.9400-01	.0000	.1587-02	.1915-02	.0000	1.183	9.140	531.5
6	1.0000	.16350	402.00	.8300-01	.1000+00	.0000	.1689-02	.2039-02	.0000	1.255	10.07	533.8
6	1.0000	.16640	403.00	.8900-01	.1070	.0000	.1811-02	.2186-02	.0000	1.347	11.10	532.5
6	2.0000	.00000	367.00	.5320	.6530	.0000	.1086-01	.1333-01	.0000	7.488	62.07	587.3
5	2.0000	.10000-02	273.00	.6180	.7610	.6260	.1263-01	.1555-01	.1280-01	8.560	69.17	598.2
5	2.0000	.18000-02	274.00	.6060	.7460	.6090	.1238-01	.1523-01	.1243-01	8.446	67.43	595.4
5	2.0000	.41000-02	275.00	.5580	.6860	.5590	.1139-01	.1402-01	.1141-01	7.769	60.90	595.6
5	2.0000	.70000-02	276.00	.5270	.6470	.5370	.1076-01	.1321-01	.1096-01	7.413	57.68	588.7
5	2.0000	.10300-01	277.00	.4820	.5910	.4950	.9846-02	.1208-01	.1011-01	6.807	53.22	586.3
5	2.0000	.15100-01	278.00	.4940	.6050	.5130	.1010-01	.1236-01	.1048-01	7.051	54.52	579.6
5	2.0000	.19900-01	279.00	.3090	.3780	.3250	.6317-02	.7717-02	.6637-02	4.448	42.09	573.4
5	2.0000	.23200-01	280.00	.9800-01	.1190	.1040	.2007-02	.2428-02	.2117-02	1.480	15.72	540.6
5	2.0000	.26300-01	281.00	.2660	.3250	.2840	.5439-02	.6646-02	.5792-02	3.828	44.21	574.0
5	2.0000	.29900-01	282.00	.2730	.3340	.2930	.5586-02	.6815-02	.5978-02	3.958	37.86	569.1
5	2.0000	.33800-01	283.00	.2410	.2930	.2600	.4916-02	.5986-02	.5305-02	3.514	33.57	562.8
5	2.0000	.38100-01	284.00	.2190	.2670	.2390	.4480-02	.5453-02	.4872-02	3.208	30.80	561.6
5	2.0000	.41400-01	285.00	.2070	.2520	.2260	.4226-02	.5142-02	.4621-02	3.031	29.12	560.4
5	2.0000	.45200-01	286.00	.2020	.2450	.2220	.4116-02	.5001-02	.4535-02	2.971	27.41	555.9
5	2.0000	.50300-01	287.00	.1860	.2260	.2070	.3802-02	.4623-02	.4225-02	2.736	26.31	558.1
5	2.0000	.15000	289.00	.9300-01	.1120	.1070	.1894-02	.2287-02	.2191-02	1.411	10.54	532.9
5	2.0000	.20000	290.00	.7600-01	.9200-01	.8900-01	.1556-02	.1879-02	.1812-02	1.157	9.970	534.1
5	2.0000	.25000	291.00	.6700-01	.8100-01	.7900-01	.1376-02	.1662-02	.1613-02	1.022	8.380	534.7
5	2.0000	.30000	292.00	.5200-01	.6300-01	.6100-01	.1061-02	.1282-02	.1244-02	.7870	6.400	536.1
5	2.0000	.35000	293.00	.7200-01	.8800-01	.8500-01	.1476-02	.1790-02	.1737-02	1.075	9.150	549.3
5	2.0000	.40000	294.00	.7500-01	.9100-01	.8800-01	.1526-02	.1851-02	.1796-02	1.109	8.930	550.6
5	2.0000	.45000	295.00	.8600-01	.1040	.1010	.1759-02	.2134-02	.2070-02	1.278	9.710	551.1
6	3.0000	.00000	367.00	.5320	.6530	.0000	.1086-01	.1333-01	.0000	7.488	62.07	587.3
5	3.0000	.80000-03	145.00	.3710	.4520	.0000	.7568-02	.9236-02	.0000	5.354	39.24	570.2
5	3.0000	.23000-02	146.00	.4030	.1920	.0000	.8239-02	.1006-01	.0000	5.824	41.84	570.8
5	3.0000	.43000-02	147.00	.3030	.3680	.0000	.6184-02	.7526-02	.0000	4.431	32.62	561.2

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA03)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
5	3.0000	.68000-02	148.00	.2460	.2990	.0000	.5026-02	.6104-02	.0000	3.638	26.02	553.8
5	3.0000	.95000-02	149.00	.1940	.2350	.0000	.3969-02	.4809-02	.0000	2.905	20.08	545.7
5	3.0000	.12200-01	150.00	.1820	.2210	.0000	.3724-02	.4513-02	.0000	2.720	18.96	547.3
5	3.0000	.21800-01	151.00	.1100	.1340	.0000	.2255-02	.2728-02	.0000	1.664	11.87	539.9
5	3.0000	.25100-01	152.00	.1150	.1390	.0000	.2349-02	.2841-02	.0000	1.733	12.82	539.6
5	3.0000	.28600-01	153.00	.1050	.1270	.0000	.2151-02	.2602-02	.0000	1.587	13.03	540.0
5	3.0000	.35400-01	155.00	.9300-01	.1130	.0000	.1903-02	.2300-02	.0000	1.407	11.23	538.1
5	3.0000	.38700-01	156.00	.8800-01	.1060	.0000	.1796-02	.2170-02	.0000	1.330	10.73	537.2
5	3.0000	.42000-01	157.00	.8300-01	.1010	.0000	.1704-02	.2059-02	.0000	1.261	10.29	537.2
5	3.0000	.46200-01	158.00	.8500-01	.1030	.0000	.1738-02	.2101-02	.0000	1.288	10.51	536.9
5	3.0000	.50300-01	159.00	.7900-01	.9600-01	.0000	.1620-02	.1958-02	.0000	1.200	10.74	536.8
5	3.0000	.55500-01	160.00	.6800-01	.8200-01	.0000	.1393-02	.1683-02	.0000	1.032	9.820	536.7
6	4.0000	.25000-01	296.00	.1570	.1910	.0000	.3211-02	.3887-02	.0000	2.358	18.01	542.4
6	4.0000	.50000-01	297.00	.1140	.1370	.0000	.2321-02	.2802-02	.0000	1.723	14.40	534.1
6	4.0000	.75000-01	298.00	.8200-01	.9800-01	.0000	.1666-02	.2010-02	.0000	1.245	10.35	529.3
6	4.0000	.10000+00	299.00	.6800-01	.8100-01	.0000	.1377-02	.1658-02	.0000	1.038	8.410	523.1
6	4.0000	.12500	300.00	.4900-01	.5900-01	.0000	.1007-02	.1211-02	.0000	.7630	6.840	518.7
6	4.0000	.15000	301.00	.5100-01	.6200-01	.0000	.1047-02	.1258-02	.0000	.7970	6.440	514.9
6	4.0000	.20000	303.00	.4600-01	.5500-01	.0000	.9400-03	.1128-02	.0000	.7190	5.820	511.8
6	4.0000	.22500	304.00	.2300-01	.2800-01	.0000	.4714-03	.5657-03	.0000	.3610	3.990	511.1
6	4.0000	.25000	305.00	.1600-01	.1900-01	.0000	.3181-03	.3816-03	.0000	.2440	1.960	509.2
6	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.2393-04	.2873-04	.0000	.1800-01	.1700	512.1
6	4.0000	.37500	308.00	.1000-02	.1000-02	.0000	.2101-04	.2524-04	.0000	.1600-01	.1200	515.6
6	4.0000	.42500	309.00	.1000-02	.2000-02	.0000	.2552-04	.3068-04	.0000	.1900-01	.1500	517.5
6	5.0000	.20000	311.00	.2500-01	.3000-01	.0000	.5115-03	.6145-03	.0000	.3900	3.830	514.9
6	5.0000	.22500	312.00	.2000-01	.2400-01	.0000	.4047-03	.4859-03	.0000	.3090	2.800	512.3
6	5.0000	.25000	313.00	.1300-01	.1500-01	.0000	.2631-03	.3153-03	.0000	.2020	1.540	510.7
6	5.0000	.27500	314.00	.1100-01	.1300-01	.0000	.2230-03	.2676-03	.0000	.1700	1.380	512.0
6	5.0000	.30000	315.00	.3300-01	.4000-01	.0000	.6748 03	.8110-03	.0000	.5130	3.760	516.6
6	5.0000	.32500	316.00	.3200-01	.3900-01	.0000	.6578-03	.7910-03	.0000	.4990	4.030	518.7
6	5.0000	.35000	317.00	.1800-01	.2100-01	.0000	.3548-03	.4384-03	.0000	.2780	2.020	515.6
6	5.0000	.37500	318.00	.7000-02	.9000-02	.0000	.1495-03	.1797-03	.0000	.1140	.8500	516.9
6	5.0000	.40000	319.00	.4000-02	.5000-02	.0000	.9014-04	.1084-03	.0000	.6800-01	.5600	517.1
6	5.0000	.47500	322.00	.2000-02	.3000-02	.0000	.4360-04	.5242-04	.0000	.3300-01	.2900	517.7
6	6.0000	.20000	323.00	.2500-01	.3000-01	.0000	.5140-03	.6183-03	.0000	.3890	3.390	519.4
6	6.0000	.22500	324.00	.2700-01	.3300-01	.0000	.5547-03	.6668-03	.0000	.4210	3.550	517.5
6	6.0000	.27500	326.00	.1200-01	.1400-01	.0000	.2410-03	.2997-03	.0000	.1830	1.580	517.0
6	6.0000	.30000	327.00	.9000-02	.1000-01	.0000	.1773-03	.2131-03	.0000	.1350	1.060	517.0
6	6.0000	.32500	328.00	.1900-01	.2300-01	.0000	.3953-03	.4754-03	.0000	.2990	2.710	519.4
6	6.0000	.35000	329.00	.3500-01	.4200-01	.0000	.7203-03	.8658-03	.0000	.5440	4.010	521.5
6	6.0000	.37500	330.00	.4300-01	.5100-01	.0000	.8709-03	.1049-02	.0000	.6550	5.230	524.5
6	6.0000	.40000	331.00	.2300-01	.2800-01	.0000	.4785-03	.5759-03	.0000	.3610	3.030	521.3
6	6.0000	.42500	332.00	.1500-01	.1800-01	.0000	.3051-03	.3670-03	.0000	.2310	1.880	520.7

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA03)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
6	6.0000	.45000	333.00	.7000-02	.8000-02	.0000	.1368-03	.1646-03	.0000	.1030	.8500	520.6
6	7.0000	.22500	334.00	.1300-01	.2200-01	.0000	.3698-03	.4448-03	.0000	.2800	2.480	519.1
6	7.0000	.25000	335.00	.6000-02	.8000-02	.0000	.1283-03	.1544-03	.0000	.9700-01	.7600	520.5
6	7.0000	.27.00	336.00	.9000-02	.1000-01	.0000	.1747-03	.2102-03	.0000	.1320	1.140	519.8
6	7.0000	.30000	337.00	.1200-01	.1400-01	.0000	.2393-03	.2878-03	.0000	.1810	1.330	519.3
6	7.0000	.32500	338.00	.9000-02	.1000-01	.0000	.1766-03	.2123-03	.0000	.1340	1.120	519.0
6	7.0000	.35000	339.00	.1600-01	.1900-01	.0000	.3215-03	.3868-03	.0000	.2430	1.820	519.9
6	7.0000	.40000	341.00	.2100-01	.2600-01	.0000	.4327-03	.5210-03	.0000	.3260	2.630	523.4
6	7.0000	.45000	343.00	.3900-01	.4700-01	.0000	.7958-03	.9589-03	.0000	.5970	4.860	526.2
6	8.0000	.50000-01	351.00	.8700-01	.1050	.0000	.1779-02	.2149-02	.0000	1.320	10.90	534.8
6	8.0000	.75000-01	352.00	.5200-01	.6300-01	.0000	.1068-02	.1287-02	.0000	.8020	6.700	525.9
6	8.0000	.12500	354.00	.3500-01	.4200-01	.0000	.7046-03	.8482-03	.0000	.5310	4.470	522.6
6	8.0000	.15000	355.00	.3000-01	.3600-01	.0000	.6068-03	.7304-03	.0000	.4580	3.780	522.2
6	8.0000	.17500	356.00	.3400-01	.4100-01	.0000	.6878-03	.8281-03	.0000	.5180	3.750	523.3
6	8.0000	.20000	357.00	.2700-01	.3200-01	.0000	.5479-03	.6595-03	.0000	.4130	3.550	522.3
72	9.0000	.61900-01	161.00	.1200-01	.1400-01	.0000	.2363-03	.2845-03	.0000	.1780	1.510	520.8
72	9.0000	.70900-01	162.00	.1100-01	.1300-01	.0000	.2249-03	.2708-03	.0000	.1690	1.800	521.5
72	9.0000	.80700-01	163.00	.1100-01	.1300-01	.0000	.2231-03	.2684-03	.0000	.1680	1.380	519.2
72	9.0000	.94300-01	164.00	.1200-01	.1500-01	.0000	.2487-03	.2993-03	.0000	.1870	1.450	519.5
72	9.0000	.97800-01	165.00	.1000-01	.1100-01	.0000	.1940-03	.2335-03	.0000	.1460	1.170	519.8
72	9.0000	.10130	166.00	.9000-02	.1100-01	.0000	.1854-03	.2231-03	.0000	.1400	1.100	519.5
72	10.000	.61900-01	167.00	.1300-01	.1600-01	.0000	.2699-03	.3249-03	.0000	.2030	1.510	520.6
72	10.000	.70900-01	168.00	.1100-01	.1300-01	.0000	.2248-03	.2706-03	.0000	.1690	1.620	520.7
72	10.000	.80700-01	169.00	.9000-02	.1100-01	.0000	.1838-03	.2284-03	.0000	.1430	1.190	519.5
72	10.000	.94300-01	170.00	.1100-01	.1300-01	.0000	.2207-03	.2657-03	.0000	.1660	1.340	520.7
72	10.000	.97800-01	171.00	.1100-01	.1300-01	.0000	.2222-03	.2675-03	.0000	.1670	1.400	520.6
72	10.000	.10130	172.00	.1000-01	.1200-01	.0000	.1965-03	.2365-03	.0000	.1480	1.140	520.3
72	11.000	.80700-01	173.00	.5000-02	.6000-02	.0000	.1036-03	.1247-03	.0000	.7800-01	.5900	520.4
72	11.000	.94300-01	174.00	.4000-02	.5000-02	.0000	.7728-04	.9301-04	.0000	.5800-01	.5100	520.0
72	11.000	.97800-01	175.00	.5000-02	.6000-02	.0000	.9916-04	.1193-03	.0000	.7500-01	.5200	519.7
72	11.000	.10130	176.00	.4000-02	.5000-02	.0000	.9127-04	.1098-03	.0000	.6900-01	.5100	519.6

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	9.0000	.61900-01	161.00	.1100-01	.1400-01	.0000	.1183-03	.1436-03	.0000	.8000-01	.6800	520.5
25	9.0000	.70900-01	162.00	.1100-01	.1300-01	.0000	.1107-03	.1344-03	.0000	.7500-01	.8000	520.3
25	9.0000	.80700-01	163.00	.9000-02	.1100-01	.0000	.9788-04	.1188-03	.0000	.6700-01	.5500	519.5
25	9.0000	.94300-01	164.00	.9000-02	.1100-01	.0000	.9610-04	.1167-03	.0000	.6500-01	.5100	519.2
25	9.0000	.97800-01	165.00	.7000-02	.8000-02	.0000	.7183-04	.8721-04	.0000	.4900-01	.3900	519.8
25	9.0000	.10130	166.00	.6000-02	.7000-02	.0000	.6015-04	.7302-04	.0000	.4100-01	.3200	519.7
25	10.000	.61900-01	167.00	.1300-01	.1500-01	.0000	.1335-03	.1621-03	.0000	.9100-01	.6800	519.7
25	10.000	.70900-01	168.00	.1000-01	.1300-01	.0000	.1069-03	.1322-03	.0000	.7400-01	.7100	519.6
25	10.000	.80700-01	169.00	.7000-02	.9000-02	.0000	.7817-04	.9489-04	.0000	.5300-01	.4400	519.0
25	10.000	.94300-01	170.00	.8000-02	.1000-01	.0000	.8397-04	.1019-03	.0000	.5700-01	.4600	519.8
25	10.000	.97800-01	171.00	.8000-02	.9000-02	.0000	.8030-04	.9749-04	.0000	.5500-01	.4600	519.8
25	10.000	.10130	172.00	.6000-02	.7000-02	.0000	.6019-04	.7308-04	.0000	.4100-01	.3200	520.0
25	11.000	.80700-01	173.00	.5000-02	.6000-02	.0000	.5333-04	.6475-04	.0000	.3600-01	.2700	520.1
25	11.000	.94300-01	174.00	.4000-02	.4000-02	.0000	.3849-04	.4674-04	.0000	.2600-01	.2300	519.9
25	11.000	.97800-01	175.00	.4000-02	.5000-02	.0000	.4612-04	.5599-04	.0000	.3100-01	.2200	519.7
25	11.000	.10130	176.00	.4000-02	.5000-02	.0000	.3911-04	.4749-04	.0000	.2700-01	.2000	519.8

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	9.0000	.61900-01	161.00	.1000-01	.1300-01	.0000	.2129-03	.2564-03	.0000	.1600	1.360	524.1
7	9.0000	.70900-01	162.00	.1100-01	.1300-01	.0000	.2193-03	.2642-03	.0000	.1650	1.750	524.9
7	9.0000	.80700-01	163.00	.1000-01	.1200-01	.0000	.1970-03	.2371-03	.0000	.1480	1.220	522.2
7	9.0000	.94300-01	164.00	.1100-01	.1300-01	.0000	.2193-03	.2640-03	.0000	.1650	1.280	521.9
7	9.0000	.97800-01	165.00	.9000-02	.1100-01	.0000	.1803-03	.2170-03	.0000	.1360	1.090	522.1
7	9.0000	.10130	166.00	.8000-02	.9000-02	.0000	.1532-03	.1844-03	.0000	.1160	.9100	521.5
7	10.000	.61900-01	167.00	.1300-01	.1500-01	.0000	.2567-03	.3093-03	.0000	.1930	1.430	525.3
7	10.000	.70900-01	168.00	.1200-01	.1400-01	.0000	.2361-03	.2844-03	.0000	.1770	1.700	525.4
7	10.00	80700-01	169.00	.8000-02	.1000-01	.0000	.1711-03	.2060-03	.0000	.1290	1.070	523.0
7	10.00	94300-01	170.00	.1000-01	.1200-01	.0000	.2053-03	.2472-03	.0000	.1540	1.240	523.5
7	10.000	.97800-01	171.00	.1000-01	.1200-01	.0000	.2013-03	.2424-03	.0000	.1510	1.260	523.1
7	10.000	.10130	172.00	.9000-02	.1000-01	.0000	.1748-03	.2105-03	.0000	.1320	1.010	522.9
7	11.000	.80700-01	173.00	.6000-02	.7000-02	.0000	.1166-03	.1404-03	.0000	.8800-01	.6600	524.4
7	11.000	.94300-01	174.00	.4000-02	.5000-02	.0000	.8071-04	.9719-04	.0000	.6100-01	.5400	523.3
7	11.000	.97800-01	175.00	.5000-02	.6000-02	.0000	.1082-03	.1303-03	.0000	.8100-01	.5700	522.8
7	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.9972-04	.1201-03	.0000	.7500-01	.5500	522.6

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
26	7.880	35.03	86.30	1204.	89.70	.9750-02	.4240	3659.	.2934-03	.7218-07	.4620	.1048-01
27	7.880	35.03	86.00	1205.	89.80	.9720-02	.4220	3660.	.2921-03	.7224-07	.4600	.1046-01
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF (R) =.040
26	.3947-01
27	.3956-01
28	.3965-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
27	1.0000	.00000	367.00	.4750	.5810	.0000	.4964-02	.6080-02	.0000	3.258	27.54	548.4
27	1.0000	.80000-03	368.00	.3340	.4070	.0000	.3491-02	.4260-02	.0000	2.332	18.36	536.7
27	1.0000	.19000-02	369.00	.1710	.2080	.0000	.1791-02	.2181-02	.0000	1.209	10.35	530.0
27	1.0000	.37000-02	370.00	.1150	.1400	.0000	.1204-02	.1464-02	.0000	.8170	6.730	525.8
27	1.0000	.87000-02	372.00	.5600-01	.6800-01	.0000	.5894-03	.7159-03	.0000	.4020	3.380	522.7
27	1.0000	.11800-01	373.00	.4000-01	.4800-01	.0000	.4136-03	.5020-03	.0000	.2830	2.180	520.7
27	1.0000	.15100-01	374.00	.3100-01	.3700-01	.0000	.3226-03	.3916-03	.0000	.2210	1.700	520.9
27	1.0000	.18200-01	375.00	.2600-01	.3100-01	.0000	.2672-03	.3243-03	.0000	.1830	1.350	520.1
27	1.0000	.21500-01	376.00	.1900-01	.2300-01	.0000	.1965-03	.2384-03	.0000	.1350	1.030	519.4
27	1.0000	.24600-01	377.00	.2000-01	.2400-01	.0000	.2107-03	.2557-03	.0000	.1440	1.130	519.2
27	1.0000	.27800-01	378.00	.1600-01	.2000-01	.0000	.1713-03	.2078-03	.0000	.1170	1.010	519.9
27	1.0000	.60900-01	379.00	.1500-01	.1800-01	.0000	.1521-03	.1845-03	.0000	.1040	.8600	519.0
27	1.0000	.64600-01	380.00	.1000-01	.1200-01	.0000	.1077-03	.1306-03	.0000	.7400-01	.7300	518.1
27	1.0000	.68400-01	381.00	.1200-01	.1500-01	.0000	.1253-03	.1520-03	.0000	.8600-01	.6700	518.1
27	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.1113-03	.1350-03	.0000	.7600-01	.5900	518.1
27	1.0000	.79100-01	384.00	.1000-01	.1200-01	.0000	.1076-03	.1304-03	.0000	.7400-01	.5300	517.8
27	1.0000	.94300-01	385.00	.1000-01	.1200-01	.0000	.9991-04	.1212-03	.0000	.6900-01	.5400	517.7
27	1.0000	.97800-01	386.00	.1000-01	.1200-01	.0000	.1015-03	.1231-03	.0000	.7000-01	.5900	517.7

OH103A.AEDC V418-V2, ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	Tw DEG. R
27	1.0000	.10190	387.00	.1000-01	.1200-01	.0000	.1076-03	.1305-03	.0000	.7400-01	.5100	518.3
27	1.0000	.11600	388.00	.1200-01	.1500-01	.0000	.1305-03	.1583-03	.0000	.8900-01	.9500	519.3
27	1.0000	.11950	389.00	.1800-01	.2200-01	.0000	.1905-03	.2311-03	.0000	.1310	.9100	519.0
27	1.0000	.12680	391.00	.1600-01	.1900-01	.0000	.1639-03	.1988-03	.0000	.1120	.7100	518.6
27	1.0000	.13050	392.00	.2000-01	.2400-01	.0000	.2111-03	.2561-03	.0000	.1450	.8500	518.4
27	1.0000	.13380	393.00	.2100-01	.2500-01	.0000	.2182-03	.2648-03	.0000	.1490	.8900	520.2
27	1.0000	.13760	394.00	.2600-01	.3100-01	.0000	.2715-03	.3293-03	.0000	.1860	1.120	518.2
27	1.0000	.14110	395.00	.2100-01	.2500-01	.0000	.2186-03	.2652-03	.0000	.1500	1.010	518.7
27	1.0000	.14480	396.00	.2100-01	.2500-01	.0000	.2198-03	.2667-03	.0000	.1510	1.030	518.5
27	1.0000	.14830	397.00	.2100-01	.2600-01	.0000	.2242-03	.2719-03	.0000	.1540	1.050	518.5
27	1.0000	.15190	398.00	.2500-01	.3100-01	.0000	.2631-03	.3192-03	.0000	.1810	1.290	518.6
27	1.0000	.15560	399.00	.2600-01	.3200-01	.0000	.2733-03	.3315-03	.0000	.1870	1.410	518.7
27	1.0000	.15820	400.00	.7400-01	.9000-01	.0000	.7763-03	.9459-03	.0000	.5310	3.960	522.5
27	1.0000	.16080	401.00	.8900-01	.1090	.0000	.9351-03	.1136-02	.0000	.6370	4.940	523.5
27	1.0000	.16350	402.00	.7900-01	.9600-01	.0000	.8238-03	.1001-02	.0000	.5600	4.520	524.3
27	1.0000	.16640	403.00	.8300-01	.1010	.0000	.8668-03	.1053-02	.0000	.5910	4.890	522.8
27	2.0000	.00000	367.00	.4750	.5810	.0000	.4964-02	.6080-02	.0000	3.258	27.54	548.4
26	2.0000	.10000-02	273.00	.5820	.7150	.5960	.6097-02	.7488-02	.6239-02	3.951	32.53	555.7
26	2.0000	.18000-02	274.00	.5780	.7100	.5840	.6054-02	.7434-02	.6118-02	3.925	31.97	555.3
26	2.0000	.41000-02	275.00	.5610	.6890	.5610	.5876-02	.7218-02	.5876-02	3.804	30.41	556.3
26	2.0000	.70000-02	276.00	.5440	.6680	.5500	.5703-02	.7000-02	.5759-02	3.707	29.36	553.6
26	2.0000	.10300-01	277.00	.5060	.6210	.5140	.5305-02	.6509-02	.5388-02	3.453	27.45	552.8
26	2.0000	.15100-01	278.00	.5370	.6580	.5500	.5623-02	.6834-02	.5759-02	3.671	28.81	550.7
26	2.0000	.19900-01	279.00	.3300	.4030	.3410	.3452-02	.4227-02	.3575-02	2.266	21.73	547.3
26	2.0000	.23200-01	280.00	.1180	.1440	.1230	.1236-02	.1505-02	.1286-02	.8330	8.900	529.8
26	2.0000	.26300-01	281.00	.2960	.3620	.3100	.3097-02	.3795-02	.3246-02	2.028	23.72	548.9
26	2.0000	.29900-01	282.00	.3010	.3680	.3170	.3151-02	.3857-02	.3317-02	2.073	20.07	545.8
26	2.0000	.33800-01	283.00	.2680	.3280	.2840	.2808-02	.3433-02	.2980-02	1.858	17.93	542.2
26	2.0000	.38100-01	284.00	.2530	.3090	.2700	.2647-02	.3234-02	.2828-02	1.755	17.03	540.5
26	2.0000	.41400-01	285.00	.2350	.2880	.2530	.2465-02	.3013-02	.2649-02	1.633	15.84	541.3
26	2.0000	.45200-01	286.00	.2320	.2840	.2510	.2434-02	.2972-02	.2634-02	1.618	15.06	539.0
26	2.0000	.50300-01	287.00	.2160	.2630	.2350	.2259-02	.2760-02	.2465-02	1.498	14.54	540.5
26	2.0000	.15000	289.00	.1140	.1390	.1300	.1195-02	.1456-02	.1361-02	.8050	6.020	530.2
26	2.0000	.20000	290.00	.9500-01	.1160	.1090	.9938-03	.1210-02	.1139-02	.6680	5.760	531.3
26	2.0000	.25000	291.00	.9000-01	.1100	.1040	.9459-03	.1153-02	.1092-02	.6350	5.210	532.4
26	2.0000	.30000	292.00	.7200-01	.8700-01	.8300-01	.7492-03	.9125-03	.8646-03	.5040	4.110	531.2
26	2.0000	.35000	293.00	.8800-01	.1070	.1020	.9219-03	.1125-02	.1066-02	.6140	5.260	537.8
26	2.0000	.40000	294.00	.8400-01	.1020	.9700-01	.8754-03	.1068-02	.1012-02	.5830	4.720	537.5
26	2.0000	.45000	295.00	.7700-01	.9400-01	.8900-01	.8094-03	.9876-03	.9352-03	.5400	4.140	536.5
27	3.0000	.00000	367.00	.4750	.5810	.0000	.4964-02	.6080-02	.0000	3.258	27.54	548.4
26	3.0000	.80000-03	145.00	.3630	.4430	.0000	.3798-02	.4639 02	.0000	2.522	18.77	539.6
26	3.0000	.23000-02	146.00	.3690	.4510	.0000	.3867-02	.4723-02	.0000	2.566	18.72	540.1
26	3.0000	.43000-02	147.00	.2730	.3330	.0000	.2856-02	.3485-02	.0000	1.906	14.21	536.4

OH103A.AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA05,

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
26	3.0000	.68000-02	148.00	.2330	.2840	.0000	.2440-02	.2973-02	.0000	1.639	11.85	532.2
26	3.0000	.95000-02	149.00	.1870	.2280	.0000	.1960-02	.2386-02	.0000	1.323	9.230	528.6
26	3.0000	.12200-01	150.00	.1750	.2130	.0000	.1831-02	.2229-02	.0000	1.235	8.690	529.1
26	3.0000	.21800-01	151.00	.1070	.1260	.0000	.1083-02	.1317-02	.0000	.7330	5.270	526.5
26	3.0000	.25100-01	152.00	.1110	.1350	.0000	.1162-02	.1413-02	.0000	.7870	5.850	526.7
26	3.0000	.28600-01	153.00	.1020	.1240	.0000	.1064-02	.1294-02	.0000	.7200	5.950	527.0
26	3.0000	.35400-01	155.00	.1050	.1280	.0000	.1104-02	.1343-02	.0000	.7480	6.000	526.3
26	3.0000	.38700-01	156.00	.8800-01	.1070	.0000	.9220-03	.1121-02	.0000	.6250	5.070	525.8
26	3.0000	.42000-01	157.00	.8700-01	.1060	.0000	.9121-03	.1109-02	.0000	.6180	5.070	525.8
26	3.0000	.46200-01	158.00	.8900-01	.1070	.0000	.9211-03	.1120-02	.0000	.6250	5.130	525.6
26	3.0000	.50300-01	159.00	.7600-01	.9200-01	.0000	.7945-03	.9660-03	.0000	.5390	4.840	525.9
27	4.0000	.50000-01	297.00	.1090	.1320	.0000	.1138-02	.1384-02	.0000	.7700	6.460	527.5
27	4.0000	.75000-01	298.00	.8100-01	.9800-01	.0000	.8434-03	.1026-02	.0000	.5710	4.750	527.6
27	4.0000	.10000+00	299.00	.6400-01	.7800-01	.0000	.6741-03	.8197-03	.0000	.4570	3.700	526.4
27	4.0000	.12500	300.00	.5000-01	.6100-01	.0000	.5276-03	.6413-03	.0000	.3590	3.200	525.1
27	4.0000	.15000	301.00	.5300-01	.6400-01	.0000	.5495-03	.6679-03	.0000	.3730	3.000	525.1
27	4.0000	.20000	303.00	.4700-01	.5700-01	.0000	.4919-03	.5976-03	.0000	.3350	2.690	523.3
27	4.0000	.22500	304.00	.2400-01	.2900-01	.0000	.2495-03	.3030-03	.0000	.1700	1.870	523.1
27	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.1466-03	.1780-03	.0000	.1000+00	.8000	520.6
27	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.1181-04	.1433-04	.0000	.8000-02	.7000-01	519.2
27	4.0000	.37500	308.00	.1000-02	.1000-02	.0000	.1236-04	.1500-04	.0000	.8000-02	.7000-01	520.2
27	4.0000	.42500	309.00	.2000-02	.3000-02	.0000	.2448-04	.2970-04	.0000	.1700-01	.1300	518.7
27	5.0000	.20000	311.00	.2400-01	.2900-01	.0000	.2520-03	.3058 03	.0000	.1730	1.690	519.4
27	5.0000	.22500	312.00	.2100-01	.2500-01	.0000	.2167-03	.2630-03	.0000	.1490	1.340	519.3
27	5.0000	.25000	313.00	.1700-01	.2000-01	.0000	.1754-03	.2128-03	.0000	.1200	.9200	518.7
27	5.0000	.27500	314.00	.1800-01	.2200-01	.0000	.1900-03	.2305-03	.0000	.1300	1.050	518.6
27	5.0000	.30000	315.00	.2300-01	.2800-01	.0000	.2406-03	.2919-03	.0000	.1650	1.210	518.9
27	5.0000	.32500	316.00	.1300-01	.1600-01	.0000	1356-03	.1657-03	.0000	.9400-01	.7600	518.8
27	5.0000	.35000	317.00	.1200-01	.1500-01	.0000	.1294-03	.1570-03	.0000	.8900-01	.6400	518.5
27	5.0000	.37500	318.00	.6000-02	.7000-02	.0000	.5870-04	.7121-04	.0000	.4000-01	.3000	518.8
27	5.0000	.40000	319.00	.4000-02	.5000-02	.0000	.4153-04	.5037-04	.0000	.2800-01	.2300	518.4
27	5.0000	.47500	322.00	.3000-02	.3000-02	.0000	.2879-04	.3490-04	.0000	.2000-01	.1700	516.0
27	6.0000	.20000	323.00	.2300-01	.2800-01	.0000	.2418-03	.2936-03	.0000	.1650	1.440	521.5
27	6.0000	.22500	324.00	.2900-01	.3600-01	.0000	.3073-03	.3730-03	.0000	.2100	1.770	521.2
27	6.0000	.27500	326.00	.1400-01	.1600-01	.0000	.1419-03	.1722-03	.0000	.9700-01	.8400	519.7
27	6.0000	.30000	327.00	.1600-01	.2000-01	.0000	.1697-03	.2059-03	.0000	.1160	.9200	519.6
27	6.0000	.32500	328.00	.3100-01	.3800-01	.0000	.3243-03	.3937-03	.0000	.2220	2.000	521.5
27	6.0000	.35000	329.00	.2100-01	.2500-01	.0000	.2190-03	.2658-03	.0000	.1500	1.100	520.3
27	6.0000	.37500	330.00	.1300-01	.1600-01	.0000	.1376-03	.1670-03	.0000	.9400-01	.7500	520.3
27	6.0000	.40000	331.00	.9000-02	.1200-01	.0000	.9921-04	.1204-03	.0000	.6800-01	.5700	519.2
27	6.0000	.42500	332.00	.8000-02	.1000-01	.0000	.8641-04	.1048-03	.0000	.5900-01	.4900	518.0
27	7.0000	.22500	334.00	.2000-01	.2400-01	.0000	.2106-03	.2557-03	.0000	.1440	1.270	520.6
27	7.0000	.25000	335.00	.5000-02	.6000-02	.0000	.5118-04	.6213-04	.0000	.3500-01	.2700	521.4

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
27	7.0000	.27500	336.00	.9000-02	.1100-01	.0000	.9399-04	.1140-03	.0000	.6400-01	.5500	519.8
27	7.0000	.30000	337.00	.1200-01	.1500-01	.0000	.1267-03	.1537-03	.0000	.8700-01	.6400	519.1
27	7.0000	.32500	338.00	.1600-01	.1900-01	.0000	.1622-03	.1968-03	.0000	.1110	.9300	519.7
27	7.0000	.35000	339.00	.2800-01	.3400-01	.0000	.2966-03	.3600-03	.0000	.2030	1.520	520.1
27	7.0000	.40000	341.00	.2000-01	.2500-01	.0000	.2115-03	.2567-03	.0000	.1450	1.170	521.2
27	7.0000	.45000	343.00	.1400-01	.1700-01	.0000	.1476-03	.1790-03	.0000	.1010	.8300	519.5
27	8.0000	.50000-01	351.00	.6900-01	.8400-01	.0000	.7194-03	.8749-03	.0000	.4880	4.040	527.0
27	8.0000	.75000-01	352.00	.4900-01	.5900-01	.0000	.5107-03	.6202-03	.0000	.3480	2.920	522.5
27	8.0000	.12500	354.00	.3300-01	.4100-01	.0000	.3501-03	.4252-03	.0000	.2390	2.010	522.2
27	8.0000	.15000	355.00	.2700-01	.3300-01	.0000	.2861-03	.3475-03	.0000	.1950	1.610	523.2
27	8.0000	.17500	356.00	.3000-01	.3700-01	.0000	.3175-03	.3858-03	.0000	.2160	1.570	523.5
27	8.0000	.20000	357.00	.2800-01	.3400-01	.0000	.2926-03	.3554-03	.0000	.1990	1.710	523.2
28	9.0000	.61900-01	161.00	.1000-01	.1200-01	.0000	.1074-03	.1304-03	.0000	.7400-01	.6300	519.7
28	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.1011-03	.1226-03	.0000	.6900-01	.7400	519.6
28	9.0000	.80700-01	163.00	.9000-02	.1100-01	.0000	.9439-04	.1152-03	.0000	.6500-01	.5400	518.8
28	9.0000	.94300-01	164.00	.1100-01	.1300-01	.0000	.1119-03	.1358-03	.0000	.7700-01	.5900	518.7
28	9.0000	.97800-01	165.00	.9000-02	.1100-01	.0000	.9199-04	.1116-03	.0000	.6300-01	.5100	519.1
28	9.0000	.10130	166.00	.8000-02	.1000-01	.0000	.8410-04	.1020-03	.0000	.5800-01	.4500	518.9
28	10.000	.61900-01	167.00	.9000-02	.1100-01	.0000	.9529-04	.1168-03	.0000	.6600-01	.4900	518.2
28	10.000	.70900-01	168.00	.8000-02	.1000-01	.0000	.8430-04	.1022-03	.0000	.5800-01	.5600	518.5
28	10.000	.80700-01	169.00	.6000-02	.8000-02	.0000	.6597-04	.8000-04	.0000	.4500-01	.3800	517.9
28	10.000	.94300-01	170.00	.8000-02	.1000-01	.0000	.8633-04	.1047-03	.0000	.5900-01	.4800	518.8
28	10.000	.97800-01	171.00	.8000-02	.1000-01	.0000	.8751-04	.1061-03	.0000	.6000-01	.5000	518.8
28	10.000	.10130	172.00	.7000-02	.9000-02	.0000	.7633-04	.9259-04	.0000	.5200-01	.4100	518.8
28	11.000	.80700-01	173.00	.4000-02	.5000-02	.0000	.4142-04	.5023-04	.0000	.2800-01	.2100	518.3
28	11.000	.97800-01	175.00	.3000-02	.4000-02	.0000	.3643-04	.4417-04	.0000	.2500-01	.1800	517.9
28	11.000	.10130	176.00	.4000-02	.4000-02	.0000	.3813-04	.4624-04	.0000	.2600-01	.1900	518.0

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
52	7.930	34.95	165.0	1223.	90.10	.1790-01	.7880	3689.	.5362-03	.7247-07	.8480	.1432-01
53	7.930	34.94	165.4	1225.	90.20	.1790-01	.7890	3692.	.5366-03	.7259-07	.8480	.1434-01
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
52	.2924-01
53	.2924-01
54	.2936-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
53	1.0000	.00000	367.00	.4750	.5830	.0000	.6818-02	.8360-02	.0000	4.527	38.02	560.8
53	1.0000	.80000-03	368.00	.3180	.3880	.0000	.4556-02	.5558-02	.0000	3.094	24.26	545.5
53	1.0000	.19000-02	369.00	.1700	.2060	.0000	.2431-02	.2956-02	.0000	1.677	14.33	534.8
53	1.0000	.37000-02	370.00	.1130	.1370	.0000	.1625-02	.1971-02	.0000	1.134	9.340	526.9
53	1.0000	.87000-02	372.00	.5800-01	.7000-01	.0000	.8289-03	.1004-02	.0000	.5820	4.890	522.5
53	1.0000	.11800-01	373.00	.4200-01	.5100-01	.0000	.6001-03	.7264-03	.0000	.4230	3.250	520.4
53	1.0000	.15100-01	374.00	.3400-01	.4100-01	.0000	.4821-03	.5834-03	.0000	.3400	2.620	519.7
53	1.0000	.18200-01	375.00	.2800-01	.3400-01	.0000	.4063-03	.4916-03	.0000	.2870	2.120	518.6
53	1.0000	.21500-01	376.00	.1900-01	.2200-01	.0000	.2665-03	.3224-03	.0000	.1880	1.440	518.0
53	1.0000	.24600-01	377.00	.2000-01	.2400-01	.0000	.2830-03	.3423-03	.0000	.2000	1.570	517.5
53	1.0000	.27800-01	378.00	.1500-01	.1800-01	.0000	.2145-03	.2594-03	.0000	.1520	1.310	517.7
53	1.0000	.60900-01	379.00	.1400-01	.1700-01	.0000	.1970-03	.2382-03	.0000	.1390	1.150	516.6
53	1.0000	.64600-01	380.00	.1000-01	.1200-01	.0000	.1397-03	.1688-03	.0000	.9900-01	.9700	515.5
53	1.0000	.68400-01	381.00	.1200-01	.1400-01	.0000	.1699-03	.2054-03	.0000	.1200	.9400	515.9
53	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.1525-03	.1843-03	.0000	.1080	.8300	515.8
53	1.0000	.79100-01	384.00	.9000-02	.1100-01	.0000	.1296-03	.1566-03	.0000	.9200-01	.6700	515.5
53	1.0000	.94300-01	385.00	.1000-01	.1200-01	.0000	.1461-03	.1767-03	.0000	.1040	.8100	515.5
53	1.0000	.97800-01	386.00	.1100-01	.1300-01	.0000	.1508-03	.1823-03	.0000	.1070	.9100	515.4

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.99	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
53	1.0000	.10190	387.00	.1100-01	.1400-01	.0000	.1617-03	.1955-03	.0000	.1150	.9400	516.1
53	1.0000	.11600	388.00	.1400-01	.1700-01	.0000	.1981-03	.2395-03	.0000	.1400	1.490	516.8
53	1.0000	.11950	389.00	.1900-01	.2400-01	.0000	.2790-03	.3372-03	.0000	.1980	1.370	516.1
53	1.0000	.12680	391.00	.2000-01	.2500-01	.0000	.2939-03	.3553-03	.0000	.2090	1.320	516.5
53	1.0000	.13050	392.00	.2300-01	.2800-01	.0000	.3312-03	.4004-03	.0000	.2350	1.380	515.8
53	1.0000	.13380	393.00	.2400-01	.2900-01	.0000	.3495-03	.4225-03	.0000	.2480	1.480	516.3
53	1.0000	.13760	394.00	.3000-01	.3600-01	.0000	.4239-03	.5125-03	.0000	.3000	1.800	516.2
53	1.0000	.14110	395.00	.2400-01	.2900-01	.0000	.3448-03	.4169-03	.0000	.2440	1.650	516.1
53	1.0000	.14480	396.00	.2600-01	.3200-01	.0000	.3796-03	.4590-03	.0000	.2690	1.830	516.4
53	1.0000	.14830	397.00	.2500-01	.3100-01	.0000	.3684-03	.4454-03	.0000	.2610	1.780	516.6
53	1.0000	.15190	398.00	.3200-01	.3800-01	.0000	.4556-03	.5508-03	.0000	.3230	2.320	516.2
53	1.0000	.15560	399.00	.3500-01	. 200-01	.0000	.4999-03	.6043-03	.0000	.3540	2.680	516.3
53	1.0000	.15820	400.00	.8800-01	.1070	.0000	.1263-02	.1531-02	.0000	.8870	6.610	522.8
53	1.0000	.16080	401.00	.8400-01	.1020	.0000	.1211-02	.1468-02	.0000	.8480	6.580	524.3
53	1.0000	.16350	402.00	.8600-01	.1040	.0000	.1230-02	.1491-02	.0000	.8600	6.930	525.4
53	1.0000	.16640	403.00	.8900-01	.1080	.0000	.1274-02	.1544-02	.0000	.8920	7.380	524.1
53	2.0000	.00000	367.00	.4750	.5830	.0000	.6818-02	.8360-02	.0000	4.527	38.02	560.8
52	2.0000	.10000-02	273.00	.5740	.7070	.5870	.8221-02	.1012-01	.8413-02	5.380	43.80	570.7
52	2.0000	.18000-02	274.00	.5800	.7130	.5860	.8299-02	.1021-01	.8387-02	5.415	43.78	570.2
52	2.0000	.41000-02	275.00	.5530	.6810	.5530	.7920-02	.9752-02	.7920-02	5.156	40.89	571.7
52	2.0000	.70000-02	276.00	.5340	.6570	.5400	.7654-02	.9412-02	.7730-02	5.010	39.38	568.1
52	2.0000	.10300-01	277.00	.5020	.6170	.5100	.7183-02	.8829-02	.7298-02	4.711	37.19	566.9
52	2.0000	.15100-01	278.00	.5310	.6520	.5440	.7604-02	.9337-02	.7790-02	5.009	39.04	563.9
52	2.0000	.19900-01	279.00	.3300	.4040	.3420	.4722-02	.5793-02	.4893-02	3.125	29.76	560.9
52	2.0000	.23200-01	280.00	.1160	.1410	.1210	.1660-02	.2018-02	.1727-02	1.145	12.21	533.3
52	2.0000	.26300-01	281.00	.2940	.3600	.3080	.4204-02	.5161-02	.4409-02	2.774	32.22	562.9
52	2.0000	.29900-01	282.00	.3030	.3720	.3200	.4344-02	.5324-02	.4576-02	2.887	27.77	558.1
52	2.0000	.33800-01	283.00	.2690	.3290	.2850	.3846-02	.4705-02	.4083-02	2.576	24.74	552.8
52	2.0000	.38100-01	284.00	.2480	.3030	.2650	.3547-02	.4335-02	.3792-02	2.385	23.03	550.2
52	2.0000	.41400 01	285.00	.2330	.2850	.2500	.3335-02	.4075-02	.3584-02	2.244	21.67	549.9
52	2.0000	.45200-01	286.00	.2300	.2810	.2490	.3288-02	.4026-02	.3570-02	2.229	20.66	546.8
52	2.0000	.50300-01	287.00	.2140	.2610	.2330	.3063-02	.3737-02	.3338-02	2.060	19.91	549.1
52	2.0000	.15000	289.00	.1180	.1430	.1340	.1695-02	.2049-02	.1918-02	1.161	8.670	533.7
52	2.0000	.20000	290.00	.9600-01	.1160	.1090	.1388-02	.1665-02	.1568-02	.9380	8.070	536.7
52	2.0000	.25000	291.00	.8800-01	.1070	.1010	.1258-02	.1532-02	.1452-02	.8600	7.040	538.8
52	2.0000	.30000	292.00	.6900-01	.8400-01	.8000-01	.9895-03	.1204-02	.1142-02	.6780	5.520	537.0
52	2.0000	.35000	293.00	.8700-01	.1060	.1000+00	.1242-02	.1516 02	.1436-02	.8390	7.150	547.0
52	2.0000	.40000	294.00	.8000-01	.9800-01	.9300-01	.1151-02	.1405-02	.1331-02	.7780	6.270	546.5
52	2.0000	.45000	295.00	.7700-01	.9400-01	.8900-01	.1106-02	.1349-02	.1278-02	.7500	5.720	544.3
53	3.0000	.00000	367.00	.4750	.5830	.0000	.6818-02	.8360-02	.0000	4.527	38.02	560.8
52	3.0000	.80000-03	145.00	.3580	.4380	.0000	.5131-02	.6271-02	.0000	3.452	25.56	550.0
52	3.0000	.23000-02	146.00	.3700	.4530	.0000	.5305-02	.6483-02	.0000	3.571	25.92	549.6
52	3.0000	.43000-02	147.00	.2840	.3470	.0000	.4071-02	.4964-02	.0000	2.769	20.58	542.5

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HAC5)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R<0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
52	3.0000	.68000-02	148.00	.2260	.2750	.0000	.3232-02	.3932-02	.0000	2.219	16.01	536.0
52	3.0000	.95000-02	149.00	.1860	.2270	.0000	.2671-02	.3245-02	.0000	1.845	12.85	531.7
52	3.0000	.12200-01	150.00	.1770	.2150	.0000	.2535-02	.3080-02	.0000	1.749	12.28	532.7
52	3.0000	.21800-01	151.00	.1020	.1240	.0000	.1461-02	.1773-02	.0000	1.015	7.280	527.9
52	3.0000	.25100-01	152.00	.1140	.1380	.0000	.1629-02	.1977-02	.0000	1.133	8.430	527.4
52	3.0000	.28600-01	153.00	.1040	.1260	.0000	.1486-02	.1804-02	.0000	1.033	8.530	527.8
52	3.0000	.35400-01	155.00	.9600-01	.1160	.0000	.1370-02	.1662-02	.0000	.9520	7.640	527.6
52	3.0000	.38700-01	156.00	.8900-01	.1080	.0000	.1278-02	.1551-02	.0000	.8890	7.210	527.0
52	3.0000	.42000-01	157.00	.8500-01	.1030	.0000	.1220-02	.1480-02	.0000	.8490	6.960	527.0
52	3.0000	.46200-01	158.00	.8900-01	.1080	.0000	.1276-02	.1548-02	.0000	.8860	7.280	526.7
52	3.0000	.50300-01	159.00	.7800-01	.9500-01	.0000	.1123-02	.1362-02	.0000	.7810	7.020	526.7
53	4.0000	.50000-01	297.00	.1070	.1300	.0000	.1540-02	.1869-02	.0000	1.072	8.980	528.8
53	4.0000	.75000-01	298.00	.8000-01	.9700-01	.0000	.1148-02	.1394-02	.0000	.7980	6.630	529.8
53	4.0000	.10000+00	299.00	.6800-01	.8200-01	.0000	.9707-03	.1178-02	.0000	.6770	5.470	527.2
53	4.0000	.12500	300.00	.5200-01	.6300-01	.0000	.7439-03	.9018-03	.0000	.5200	4.640	525.4
53	4.0000	.15000	301.00	.5400-01	.6600-01	.0000	.7812-03	.9470-03	.0000	.5460	4.390	525.4
53	4.0000	.20000	303.00	.5000-01	.6100-01	.0000	.7226-03	.8752-03	.0000	.5070	4.080	522.5
53	4.0000	.22500	304.00	.2600-01	.3200-01	.0000	.3738-03	.4527-03	.0000	.2630	2.800	521.4
53	4.0000	.25000	305.00	.1400-01	.1600-01	.0000	.1952-03	.2361-03	.0000	.1380	1.100	518.2
53	4.0000	.32500	307.00	.2000-02	.2000-02	.0000	.2341-04	.2830-04	.0000	.1700-01	.1500	516.3
53	4.0000	.37500	308.00	.1000-02	.2000-02	.0000	.1934-04	.2339-04	.0000	.1400-01	.1100	517.5
53	4.0000	.42500	309.00	.2000-02	.3000-02	.0000	.3270-04	.3953-04	.0000	.2300-01	.1800	515.6
53	5.0000	.20000	311.00	.2600-01	.3100-01	.0000	.3730-03	.4512-03	.0000	.2640	2.590	517.7
53	5.0000	.22500	312.00	.2000-01	.2400-01	.0000	.2848-03	.3444-03	.0000	.2010	1.820	517.4
53	5.0000	.25000	313.00	.1600-01	.1900-01	.0000	.2257-03	.2728-03	.0000	.1600	1.220	515.8
53	5.0000	.27500	314.00	.2000-01	.2400-01	.0000	.2820-03	.3409-03	.0000	.2000	1.620	516.1
53	5.0000	.30000	315.00	.2700-01	.3300-01	.0000	.3912-03	.4731-03	.0000	.2770	2.030	517.1
53	5.0000	.32500	316.00	.1500-01	.1800-01	.0000	.2136-03	.2582-03	.0000	.1510	1.230	515.9
53	5.0000	.35000	317.00	.1500-01	.1800-01	.0000	.2184-03	.2640-03	.0000	.1550	1.130	515.1
53	5.0000	.37500	318.00	.5000-02	.7000-02	.0000	.7784-04	.9409-04	.0000	.5500-01	.4100	515.5
53	5.0000	.40000	319.00	.4000-02	.4000-02	.0000	.5070-04	.6127-04	.0000	.3600-01	.2900	514.9
53	5.0000	.47500	322.00	.2000-02	.3000-02	.0000	.3109-04	.3754-04	.0000	.2200-01	.1900	511.6
53	6.0000	.20000	323.00	.2700-01	.3300-01	.0000	.3906-03	.4727-03	.0000	.2760	2.400	519.3
53	6.0000	.22500	324.00	.3000-01	.3700-01	.0000	.4368-03	.5285-03	.0000	.3090	2.600	518.4
53	6.0000	.27500	326.00	.1300-01	.1600-01	.0000	.1859-03	.2247-03	.0000	.1320	1.140	516.1
53	6.0000	.30000	327.00	.1300-01	.1600-01	.0000	.1902-03	.2300-03	.0000	.1350	1.070	515.8
53	6.0000	.32500	328.00	.3400-01	.4100-01	.0000	.4893-03	.5920-03	.0000	.3450	3.130	518.9
53	6.0000	.35000	329.00	.3200-01	.3900-01	.0000	.4652-03	.5627-03	.0000	.3290	2.420	518.2
53	6.0000	.37500	330.00	.1800-01	.2200-01	.0000	.2575-03	.3114-03	.0000	.1820	1.460	517.5
53	6.0000	.40000	331.00	.1400-01	.1700-01	.0000	.2027-03	.2451-03	.0000	.1440	1.210	516.0
53	6.0000	.42500	332.00	.9000-02	.1100-01	.0000	.1357-03	.1640-03	.0000	.9600-01	.7900	514.7
53	6.0000	.45000	333.00	.2000-02	.2000-02	.0000	.2356-04	.2846-04	.0000	.1700-01	.1400	513.5
53	7.0000	.22500	334.00	.1800-01	.2200-01	.0000	.2561-03	.3098-03	.0000	.1810	1.600	518.4

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA05)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
53	7.0000	.25000	335.00	.1300-01	.1600-01	.0000	.1848-03	.2235-03	.0000	.1310	1.020	517.9
53	7.0000	.27500	336.00	.8000-02	.1000-01	.0000	.1128-03	.1364-03	.0000	.8000-01	.6900	516.7
53	7.0000	.30000	337.00	.1200-01	.1400-01	.0000	.1652-03	.1996-03	.0000	.1170	.8600	515.6
53	7.0000	.32500	338.00	.1300-01	.1600-01	.0000	.1887-03	.2281-03	.0000	.1340	1.120	515.7
53	7.0000	.35000	339.00	.2500-01	.3000-01	.0000	.3566-03	.4312-03	.0000	.2520	1.890	517.3
53	7.0000	.40000	341.00	.2100-01	.2600-01	.0000	.3028-03	.3664-03	.0000	.2140	1.730	518.7
53	7.0000	.45000	343.00	.1600-01	.1900-01	.0000	.2252-03	.2723-03	.0000	.1600	1.310	516.4
53	8.0000	.50000-01	351.00	.8600-01	.1040	.0000	.1233-02	.1497-02	.0000	.8570	7.100	529.4
53	8.0000	.75000-01	352.00	.5200-01	.6200-01	.0000	.7391-03	.8951-03	.0000	.5190	4.350	522.1
53	8.0000	.12500	354.00	.3400-01	.4100-01	.0000	.4825-03	.5842-03	.0000	.3390	2.850	521.4
53	8.0000	.15000	355.00	.3400-01	.4100-01	.0000	.4885-03	.5915-03	.0000	.3440	2.840	521.1
53	8.0000	.17500	356.00	.3600-01	.4400-01	.0000	.5205-03	.6302-03	.0000	.3660	2.650	52..6
53	8.0000	.20000	357.00	.2800-01	.3400-01	.0000	.3971-03	.4807-03	.0000	.2790	2.400	520.9
54	9.0000	.61900-01	161.00	.9000-02	.1100-01	.0000	.1324-03	.1601-03	.0000	.9400-01	.8000	518.4
54	9.0000	.70900-01	162.00	.9000-02	.1100-01	.0000	.1273-03	.1539-03	.0000	.9000-01	.9600	518.2
54	9.0000	.80700-01	163.00	.8000-02	.1000-01	.0000	.1208-03	.1460-03	.0000	.8600-01	.7000	517.4
54	9.0000	.94300-01	164.00	.1100-01	.1300-01	.0000	.1576-03	.1906-03	.0000	.1120	.8600	517.3
54	9.0000	.97800-01	165.00	.9000-02	.1100-01	.0000	.1259-03	.1522-03	.0000	.8900-01	.7100	517.7
54	9.0000	.10130	166.00	.8000-02	.1000-01	.0000	.1137-03	.1375-03	.0000	.8100-01	.6300	517.6
54	10.000	.61900-01	167.00	.8000-02	.1000-01	.0000	.1187-03	.1435-03	.0000	.8400-01	.6300	517.2
54	10.000	.70900-01	168.00	.8000-02	.9000-02	.0000	.1110-03	.1342-03	.0000	.7900-01	.7600	517.1
54	10.000	.80700-01	169.00	.7000-02	.8000-02	.0000	.9326-04	.1127-03	.0000	.6600-01	.5500	516.6
54	10.000	.94300-01	170.00	.1000-01	.1200-01	.0000	.1363-03	.1648-03	.0000	.9700-01	.7800	517.6
54	10.000	.97800-01	171.00	.1000-01	.1200-01	.0000	.1393-03	.1684-03	.0000	.9900-01	.8300	517.5
54	10.000	.10130	172.00	.9000-02	.1000-01	.0000	.1220-03	.1476-03	.0000	.8700-01	.6700	517.5
54	11.000	.80700-01	173.00	.3000-02	.4000-02	.0000	.4163-04	.5033-04	.0000	.3000-01	.2200	517.1
54	11.000	.94300-01	174.00	.3000-02	.3000-02	.0000	.3803-04	.4597-04	.0000	.2700-01	.2400	516.5
54	11.000	.97800-01	175.00	.4000-02	.5000-02	.0000	.5527-04	.6680-04	.0000	.3900-01	.2800	516.2
54	11.000	.10130	176.00	.4000-02	.5000-02	.0000	.6036-04	.7296-04	.0000	.4300-01	.3200	516.5

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
8	7.970	35.04	337.8	1276.	93.10	.3550-01	1.576	3770.	.1028-02	.7491-07	1.610	.2041-01
9	7.970	35.03	337.6	1277.	93.20	.3540-01	1.576	3771.	.1027-02	.7497-07	1.610	.2041-01
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
8	.2121-01
9	.2123-01
73	.2125-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
9	1.0000	.00000	367.00	.4730	.5790	.0000	.9654-02	.1181-01	.0000	6.760	56.34	576.4
9	1.0000	.80000-03	368.00	.3190	.3870	.0000	.6507-02	.7906-02	.0000	4.695	36.62	555.2
9	1.0000	.19000-02	369.00	.1700	.2050	.0000	.3463-02	.4193-02	.0000	2.540	21.60	543.4
9	1.0000	.37000-02	370.00	.1130	.1360	.0000	.2300-02	.2778-02	.0000	1.707	14.00	534.4
9	1.0000	.87000-02	372.00	.5600-01	.6800-01	.0000	.1151-02	.1388-02	.0000	.8610	7.210	528.8
9	1.0000	.11800-01	373.00	.4100-01	.4900-01	.0000	.8286-03	.9983-03	.0000	.6220	4.780	525.7
9	1.0000	.15100-01	374.00	.3100-01	.3800-01	.0000	.6403-03	.7714-03	.0000	.4810	3.690	525.5
9	1.0000	.18200-01	375.00	.2600-01	.3100-01	.0000	.5315-03	.6401-03	.0000	.4000	2.940	523.9
9	1.0000	.21500-01	376.00	.1900-01	.2300-01	.0000	.3889-03	.4582-03	.0000	.2930	2.240	523.2
9	1.0000	.24600-01	377.00	.2000-01	.2400-01	.0000	.4005-03	.4822-03	.0000	.3020	2.360	523.3
9	1.0000	.27800-01	378.00	.1400-01	.1600-01	.0000	.2789-03	.3357-03	.0000	.2100	1.810	522.8
9	1.0000	.60900-01	379.00	.1300-01	.1600-01	.0000	.2743-03	.3301-03	.0000	.2070	1.700	521.4
9	1.0000	.64600-01	380.00	.1000-01	.1100-01	.0000	.1945-03	.2339-03	.0000	.1470	1.440	519.8
9	1.0000	.68400-01	381.00	.1100-01	.1300-01	.0000	.2180-03	.2623-03	.0000	.1650	1.280	519.8
9	1.0000	.72100-01	382.00	.1000-01	.1200-01	.0000	.2036-03	.2449-03	.0000	.1540	1.190	519.4
9	1.0000	.79100-01	384.00	.9000-02	.1100-01	.0000	.1877-03	.2257-03	.0000	.1420	1.030	519.1
9	1.0000	.94300-01	385.00	.1000-01	.1200-01	.0000	.2110-03	.2537-03	.0000	.1600	1.250	518.4
9	1.0000	.97800-01	386.00	.1000-01	.1300-01	.0000	.2134-03	.2566-03	.0000	.1620	1.380	518.9

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
9	1.0000	.10190	387.00	.1200-01	.1400-01	.0000	.2379-03	.2862-03	.0000	.1800	1.480	519.5
9	1.0000	.11600	388.00	.1600-01	.1900-01	.0000	.3252-03	.3913-03	.0000	.2460	2.600	520.4
9	1.0000	.11950	389.00	.2300-01	.2700-01	.0000	.4650-03	.5593-03	.0000	.3520	2.440	519.7
9	1.0000	.12680	391.00	.2300-01	.2800-01	.0000	.4699 03	.5651-03	.0000	.3560	2.250	519.1
9	1.0000	.13050	392.00	.2600-01	.3100-01	.0000	.5298-03	.6372-03	.0000	.4010	2.360	519.1
9	1.0000	.13380	393.00	.2700-01	.3200-01	.0000	.5428-03	.6531-03	.0000	.4100	2.440	520.7
9	1.0000	.13760	394.00	.2600-01	.3100-01	.0000	.5256-03	.6322-03	.0000	.3980	2.390	519.7
9	1.0000	.14110	395.00	.2600-01	.3100-01	.0000	.5332-03	.6413-03	.0000	.4040	2.720	519.5
9	1.0000	.14480	396.00	.2800-01	.3400-01	.0000	.5695-03	.6851-03	.0000	.4310	2.930	520.2
9	1.0000	.14830	397.00	.2700-01	.3300-01	.0000	.5609-03	.6748-03	.0000	.4240	2.880	520.1
9	1.0000	.15190	398.00	.3000-01	.3600-01	.0000	.6107-03	.7347-03	.0000	.4620	3.310	520.4
9	1.0000	.15560	399.00	.3900-01	.4700-01	.0000	.8045-03	.9679-03	.0000	.6090	4.590	520.2
9	1.0000	.15820	400.00	.8600-01	.1030	.0000	.1747-02	.2106-02	.0000	1.307	9.720	528.2
9	1.0000	.16080	401.00	.9000-01	.1090	.0000	.1843-02	.2223-02	.0000	1.377	10.66	529.6
9	1.0000	.16350	402.00	.8800-01	.1060	.0000	.1789-02	.2158-02	.0000	1.333	10.71	531.3
9	1.0000	.16640	403.00	.8500-01	.1030	.0000	.1744-02	.2103-02	.0000	1.305	10.77	528.7
9	2.0000	.00000	367.00	.4730	.5790	.0000	.9654-02	.1181-01	.0000	6.760	56.34	576.4
8	2.0000	.10000-02	273.00	.5860	.7190	.5990	.1195-01	.1468-01	.1223-01	8.191	66.28	590.3
8	2.0000	.18000-02	274.00	.5920	.7270	.5980	.1208-01	.1484-01	.1221-01	8.290	66.38	589.4
8	2.0000	.41000-02	275.00	.5570	.6840	.5570	.1136-01	.1397-01	.1136-01	7.764	60.95	592.4
8	2.0000	.70000-02	276.00	.5410	.6640	.5460	.1104-01	.1356-01	.1115-01	7.604	59.22	587.1
8	2.0000	.10300-01	277.00	.4990	.6130	.5070	.1019-01	.1250-01	.1035-01	7.034	55.02	585.4
8	2.0000	.15100-01	278.00	.5270	.6450	.5390	.1075-01	.1316-01	.1101-01	7.483	57.86	579.6
8	2.0000	.19900-01	279.00	.3380	.4130	.3500	.6638-02	.8427-02	.7141-02	4.850	45.91	572.6
8	2.0000	.23200-01	280.00	.1100	.1330	.1140	.2247-02	.2714-02	.2335-02	1.667	17.77	534.0
8	2.0000	.26300-01	281.00	.2940	.3590	.3080	.6001-02	.7333-02	.6285-02	4.215	48.71	573.2
8	2.0000	.29900-01	282.00	.3020	.3680	.3170	.6156-02	.7510-02	.6475-02	4.357	41.70	567.9
8	2.0000	.33800-01	283.00	.2690	.3280	.2850	.5497-02	.6691-02	.5827-02	3.930	37.58	560.8
8	2.0000	.38100-01	284.00	.2520	.3070	.2690	.5150-02	.6261-02	.5494-02	3.702	35.62	556.9
8	2.0000	.41400-01	285.00	.2360	.2870	.2530	.4820-02	.5862-02	.5170-02	3.461	33.30	557.6
8	2.0000	.45200-01	286.00	.2320	.2810	.2500	.4729-02	.5741-02	.5107-02	3.421	31.63	552.2
8	2.0000	.50300-01	287.00	.2170	.2640	.2360	.4431-02	.5382-02	.4823-02	3.198	30.82	553.9
8	2.0000	.15000	289.00	.1150	.1380	.1300	.2344-02	.2816-02	.2646-02	1.783	13.44	515.1
8	2.0000	.20000	290.00	.9400-01	.1130	.1070	.1915-02	.2302-02	.2176-02	1.451	12.59	518.0
8	2.0000	.25000	291.00	.8600-01	.1040	.9900-01	.1760-02	.2116-02	.2013-02	1.333	11.03	518.0
8	2.0000	.30000	292.00	.6800-01	.8200-01	.7800-01	.1395-02	.1679-02	.1596-02	1.055	8.660	519.5
8	2.0000	.35000	293.00	.9400-01	.1130	.1070	.1910-02	.2311-02	.2194-02	1.404	12.01	540.4
8	2.0000	.40000	294.00	.1020	.1230	.1170	.2073-02	.2512-02	.2383-02	1.511	12.18	546.6
8	2.0000	.45000	295.00	.1230	.1500	.1420	.2516-02	.3055-02	.2897-02	1.820	13.82	552.6
8	2.0000	.00000	367.00	.4730	.5790	.0000	.9654-02	.1181-01	.0000	6.760	56.34	576.4
9	3.0000	.80000-03	145.00	.3590	.4380	.0000	.7333-02	.8933-02	.0000	5.222	38.40	563.5
8	3.0000	.23000-02	146.00	.3720	.4540	.0000	.7600-02	.9259-02	.0000	5.410	39.00	563.8
8	3.0000	.43000-02	147.00	.2760	.3360	.0000	.5635-02	.6862-02	.0000	4.047	29.85	557.5

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA05)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
8	3.0000	.68000-02	148.00	.2290	.2780	.0000	.4670-02	.5665-02	.0000	3.391	24.30	549.5
8	3.0000	.95000-02	149.00	.1850	.2240	.0000	.3777-02	.4573-02	.0000	2.771	19.19	542.2
8	3.0000	.12200-01	150.00	.1740	.2110	.0000	.3558-02	.4308-02	.0000	2.604	18.19	543.6
8	3.0000	.21800-01	151.00	.1000+00	.1210	.0000	.2038-02	.2464-02	.0000	1.505	10.75	537.2
8	3.0000	.25100-01	152.00	.1100	.1330	.0000	.2249-02	.2718-02	.0000	1.661	12.29	537.2
8	3.0000	.28600-01	153.00	.1010	.1220	.0000	.2056-02	.2486-02	.0000	1.518	12.47	537.6
8	3.0000	.35400-01	155.00	.1000+00	.1210	.0000	.2047-02	.2473-02	.0000	1.515	12.10	535.6
8	3.0000	.38700-01	156.00	.8600-01	.1040	.0000	.1755-02	.2119-02	.0000	1.300	10.51	534.5
8	3.0000	.42000-01	157.00	.8300-01	.1010	.0000	.1702-02	.2056-02	.0000	1.262	10.31	534.2
8	3.0000	.46200-01	158.00	.8300-01	.1010	.0000	.1700-02	.2053-02	.0000	1.262	10.31	533.6
8	3.0000	.50300-01	159.00	.7600-01	.9100-01	.0000	.1542-02	.1862-02	.0000	1.144	10.25	533.6
8	3.0000	.55500-01	160.00	.7100-01	.8500-01	.0000	.1444-02	.1744-02	.0000	1.073	10.23	532.7
9	4.0000	.25000-01	296.00	.1490	.1800	.0000	.3039-02	.3676-02	.0000	2.240	17.13	539.5
9	4.0000	.50000-01	297.00	.1090	.1310	.0000	.2220-02	.2679-02	.0000	1.655	13.84	531.4
9	4.0000	.75000-01	298.00	.7900-01	.9500-01	.0000	.1603-02	.1932-02	.0000	1.201	10.00	527.1
9	4.0000	.10000+00	299.00	.6500-01	.7800-01	.0000	.1326-02	.1596-02	.0000	.9990	8.090	523.1
9	4.0000	.12500	300.00	.4900-01	.5900-01	.0000	.1009-02	.1213-02	.0000	.7630	6.830	519.8
9	4.0000	.15000	301.00	.5100-01	.6200-01	.0000	.1047-02	.1259-02	.0000	.7950	6.410	517.8
9	4.0000	.20000	303.00	.4700-01	.5700-01	.0000	.9597-03	.1153-02	.0000	.7300	5.890	516.5
9	4.0000	.22500	304.00	.2400-01	.2800-01	.0000	.4827-03	.5800-03	.0000	.3670	4.050	515.9
9	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.2856-03	.3430-03	.0000	.2180	1.740	513.5
9	4.0000	.32500	307.00	.2000-02	.2000-02	.0000	.4162-04	.4998-04	.0000	.3200-01	.2900	513.7
9	5.0000	.20000	311.00	.2700-01	.3200-01	.0000	.5425-03	.6524-03	.0000	.4110	4.030	518.8
9	5.0000	.22500	312.00	.2000-01	.2400-01	.0000	.4061-03	.4881-03	.0000	.3090	2.730	516.4
9	5.0000	.25000	313.00	.1500-01	.1900-01	.0000	.3148-03	.3781-03	.0000	.2400	1.830	514.6
9	5.0000	.27500	314.00	.2000-01	.2400-01	.0000	.4023-03	.4834-03	.0000	.3060	2.480	515.8
9	5.0000	.30000	315.00	.3400-01	.4100-01	.0000	.6926-03	.8330-03	.0000	.5240	3.840	519.6
9	5.0000	.32500	316.00	.1600-01	.2200-01	.0000	.3764-03	.4525-03	.0000	.2860	2.310	517.3
9	5.0000	.35000	317.00	.7000-02	.8000-02	.0000	.1332-03	.1600-03	.0000	.1010	.7400	516.7
9	5.0000	.37500	318.00	.5000-02	.6000-02	.0000	.1048-03	.1259-03	.0000	.8000-01	.6000	516.5
9	5.0000	.40000	319.00	.3000-02	.4000-02	.0000	.6170-04	.7416-04	.0000	.4700-01	.3800	516.7
9	5.0000	.47500	322.00	.1000-02	.1000-02	.0000	.2464-04	.2961-04	.0000	.1900-01	.1600	516.2
9	6.0000	.20000	323.00	.2500-01	.3000-01	.0000	.5091-03	.6126-03	.0000	.3850	3.350	520.8
9	6.0000	.22500	324.00	.1600-01	.2000-01	.0000	.3350-03	.4029-03	.0000	.2540	2.140	519.1
9	6.0000	.27500	326.00	.1200-01	.1400-01	.0000	.2407-03	.2894-03	.0000	.1830	1.580	517.9
9	6.0000	.30000	327.00	.1400-01	.1700-01	.0000	.2934-03	.3528-03	.0000	.2230	1.760	518.2
9	6.0000	.32500	328.00	.3000-01	.3600-01	.0000	.6028-03	.7254-03	.0000	.4550	4.120	521.3
9	6.0000	.35000	329.00	.4000-01	.4800-01	.0000	.8064-03	.9705-03	.0000	.6090	4.480	521.7
9	6.0000	.37500	330.00	.2100-01	.2500-01	.0000	.4208-03	.5062-03	.0000	.3180	2.550	520.1
9	6.0000	.40000	331.00	.1200-01	.1400-01	.0000	.2352-03	.2829-03	.0000	.1780	1.490	519.7
9	6.0000	.42500	332.00	.1300-01	.1600-01	.0000	.2716-03	.3266-03	.0000	.2060	1.680	519.4
9	6.0000	.45000	333.00	.1100-01	.1400-01	.0000	.2337-03	.2810-03	.0000	.1770	1.470	517.9
9	7.0000	.22500	334.00	.2200-01	.2700-01	.0000	.4551-03	.5473-03	.0000	.3450	3.050	519.3

DATE 07 DEC 78

OH103A ORBITER MODEL R3-O HEATING DATA

(R4HA05)

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
9	7.0000	.25000	335.00	.2000-01	.2400-01	.0000	.4054-03	.4874-03	.0000	.3070	2.400	518.4
9	7.0000	.27500	336.00	.1500-01	.1800-01	.0000	.3012-03	.3621-03	.0000	.2280	1.970	518.0
9	7.0000	.30000	337.00	.9000-02	.1100-01	.0000	.1936-03	.2327-03	.0000	.1470	1.080	518.1
9	7.0000	.32500	338.00	.1200-01	.1400-01	.0000	.2356-03	.2833-03	.0000	.1790	1.500	518.8
9	7.0000	.35000	339.00	.2600-01	.3100-01	.0000	.5268-03	.6336-03	.0000	.3990	2.980	519.6
9	7.0000	.40000	341.00	.3100-01	.3700-01	.0000	.6282-03	.7561-03	.0000	.4740	3.830	522.2
9	7.0000	.45000	343.00	.2500-01	.3100-01	.0000	.5202-03	.6261-03	.0000	.3920	3.200	522.5
9	8.0000	.50000-01	351.00	.1010	.1220	.0000	.2069-02	.2498-02	.0000	1.540	12.73	532.6
9	8.0000	.75000-01	352.00	.5100-01	.6100-01	.0000	.1040-02	.1252-02	.0000	.7820	6.540	524.2
9	8.0000	.12500	354.00	.3700-01	.4400-01	.0000	.7504-03	.9037-03	.0000	.5650	4.740	524.0
9	8.0000	.15000	355.00	.3100-01	.3700-01	.0000	.6353-03	.7650-03	.0000	.4780	3.940	523.9
9	8.0000	.17500	356.00	.3600-01	.4300-01	.0000	.7264-03	.8748-03	.0000	.5460	3.950	524.3
9	8.0000	.20000	357.00	.2700-01	.3300-01	.0000	.5521-03	.6647-03	.0000	.4160	3.580	523.0
73	9.0000	.61900-01	161.00	.1000-01	.1200-01	.0000	.1977-03	.2378-03	.0000	.1500	1.270	520.6
73	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.1989-03	.2393-03	.0000	.1500	1.600	521.4
73	9.0000	.80700-01	163.00	.1100-01	.1300-01	.0000	.2150-03	.2586-03	.0000	.1630	1.340	519.4
73	9.0000	.94300-01	164.00	.1400-01	.1700-01	.0000	.2903-03	.3492-03	.0000	.2200	1.700	520.0
73	9.0000	.97800-01	165.00	.1100-01	.1300-01	.0000	.2279-03	.2741-03	.0000	.1730	1.380	520.2
73	9.0000	.10130	166.00	.1200-01	.1400-01	.0000	.2373-03	.2854-03	.0000	.1800	1.410	520.0
73	10.000	.61900-01	167.00	.9000-02	.1100-01	.0000	.1879-03	.2260-03	.0000	.1430	1.060	519.5
73	10.000	.70900-01	168.00	.9000-02	.1000-01	.0000	.1758-03	.2115-03	.0000	.1330	1.280	519.9
73	10.000	.80700-01	169.00	.9000-02	.1100-01	.0000	.1845-03	.2219-03	.0000	.1400	1.160	519.3
73	10.000	.94300-01	170.00	.1700-01	.2000-01	.0000	.3451-03	.4151-03	.0000	.2610	2.100	520.8
73	10.000	.97800-01	171.00	.1500-01	.1800-01	.0000	.3010-03	.3622-03	.0000	.2280	1.900	521.1
73	10.000	.10130	172.00	.1300-01	.1600-01	.0000	.2736-03	.3291-03	.0000	.2070	1.600	520.7
73	11.000	.80700-01	173.00	.3000-02	.4000-02	.0000	.6661-04	.8010-04	.0000	.5100-01	.3800	519.1
73	11.000	.94300-01	174.00	.4000-02	.4000-02	.0000	.7352-04	.8841-04	.0000	.5600-01	.4900	519.0
73	11.000	.97800-01	175.00	.6000-02	.7000-02	.0000	.1229-03	.1478-03	.0000	.9300-01	.6600	519.1
73	11.000	.10130	176.00	.7000-02	.8000-02	.0000	.1388-03	.1670-03	.0000	.1050	.7800	519.4

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
38	7.880	35.05	86.04	1185.	88.30	.9720-02	.4230	3630.	.2972-03	.7104-07	.4720	.1043-01
39	7.880	35.05	86.58	1184.	88.20	.9780-02	.4250	3626.	.2993-03	.7098-07	.4750	.1046-01
40	7.880	35.05	86.00	1193.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
38	.3915-01
39	.3901-01
40	.3912-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
39	1.0000	.00000	367.00	.4720	.5820	.0000	.4944-02	.6085-02	.0000	3.119	26.31	552.7
39	1.0000	.80000-03	368.00	.3230	.3960	.0000	.3385-02	.4148-02	.0000	2.176	17.10	540.8
39	1.0000	.19000-02	369.00	.1710	.2090	.0000	.1790-02	.2189-02	.0000	1.164	9.950	533.5
39	1.0000	.37000-02	370.00	.1120	.1370	.0000	.1174-02	.1433-02	.0000	.7690	6.320	528.9
39	1.0000	.87000-02	372.00	.5400-01	.6500-01	.0000	.5609-03	.6838-03	.0000	.3690	3.100	525.1
39	1.0000	.11800-01	373.00	.3700-01	.4500-01	.0000	.3901-03	.4751-03	.0000	.2580	1.980	522.7
39	1.0000	.15100-01	374.00	.3100-01	.3800-01	.0000	.3244-03	.3951-03	.0000	.2140	1.650	522.5
39	1.0000	.18200-01	375.00	.2600-01	.3200-01	.0000	.2725-03	.3316-03	.0000	.1800	1.330	521.4
39	1.0000	.21500-01	376.00	.2500-01	.2400-01	.0000	.2065-03	.2514-03	.0000	.1370	1.050	521.0
39	1.0000	.24600-01	377.00	.1900-01	.2400-01	.0000	.2028-03	.2468-03	.0000	.1350	1.050	520.0
39	1.0000	.27800-01	378.00	.1600-01	.1900-01	.0000	.1637-03	.1992-03	.0000	.1090	.9400	520.6
39	1.0000	.60900-01	379.00	.1400-01	.1700-01	.0000	.1473-03	.1793-03	.0000	.9800-01	.8000	519.0
39	1.0000	.64600-01	380.00	.1000-01	.1200-01	.0000	.1066-03	.1297-03	.0000	.7100-01	.7000	518.0
39	1.0000	.68400-01	381.00	.1100-01	.1400-01	.0000	.1190-03	.1447-03	.0000	.7900-01	.6200	517.9
39	1.0000	.72100-01	382.00	.1000-01	.1200-01	.0000	.1055-03	.1283-03	.0000	.7000-01	.5400	517.9
39	1.0000	.79100-01	384.00	.1000-01	.1200-01	.0000	.1051-03	.1278-03	.0000	.7000-01	.5100	517.5
39	1.0000	.94300-01	385.00	.9000-02	.1100-01	.0000	.9447-04	.1149-03	.0000	.6300-01	.4900	517.2
39	1.0000	.97800-01	386.00	.9000-02	.1100-01	.0000	.9820-04	.1194-03	.0000	.6500-01	.5600	517.1

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
39	1.0000	.10190	387.00	.1000-01	.1200-01	.0000	.1033-03	.1250-03	.0000	.6900-01	.5600	517.5
39	1.0000	.11600	388.00	.1200-01	.1400-01	.0000	.1237-03	.1505-03	.0000	.8200-01	.8700	518.2
39	1.0000	.11950	389.00	.1700-01	.2000-01	.0000	.1742-03	.2119-03	.0000	.1160	.8100	518.0
39	1.0000	.13050	392.00	.1900-01	.2400-01	.0000	.2036-03	.2476-03	.0000	.1360	.8000	517.7
39	1.0000	.13380	393.00	.2000-01	.2500-01	.0000	.2138-03	.2601-03	.0000	.1420	.8500	518.2
39	1.0000	.13760	394.00	.2500-01	.3100-01	.0000	.2628-03	.3196-03	.0000	.1750	1.050	517.7
39	1.0000	.14110	395.00	.2000-01	.2500-01	.0000	.2135-03	.2597-03	.0000	.1420	.9600	518.1
39	1.0000	.14480	396.00	.2200-01	.2700-01	.0000	.2303-03	.2801-03	.0000	.1530	1.040	518.4
39	1.0000	.14830	397.00	.2300-01	.2800-01	.0000	.2431-03	.2957-03	.0000	.1620	1.100	518.6
39	1.0000	.15190	398.00	.2500-01	.3000-01	.0000	.2612-03	.3177-03	.0000	.1740	1.250	518.1
39	1.0000	.15560	399.00	.2600-01	.3100-01	.0000	.2708-03	.3294-03	.0000	.1800	1.360	518.0
39	1.0000	.15820	400.00	.7300-01	.8900-01	.0000	.7625-03	.9287-03	.0000	.5040	3.760	522.1
39	1.0000	.16080	401.00	.7900-01	.9700-01	.0000	.8317-03	.1013-02	.0000	.5500	4.270	522.8
39	1.0000	.16350	402.00	.7500-01	.9100-01	.0000	.7856-03	.9573-03	.0000	.5180	4.180	523.8
39	1.0000	.16540	403.00	.7900-01	.9600-01	.0000	.8240-03	.1004-02	.0000	.5450	4.510	522.8
39	2.0000	.00000	367.00	.4720	.5820	.0000	.4944-02	.6085-02	.0000	3.119	26.31	552.7
38	2.0000	.10000-02	273.00	.5680	.7000	.5820	.5929-02	.7306-02	.6070-02	3.728	30.69	555.9
38	2.0000	.18000-02	274.00	.5650	.6960	.5710	.5894-02	.7262-02	.5958-02	3.707	30.18	555.7
38	2.0000	.41000-02	275.00	.5530	.6810	.5530	.5767-02	.7108-02	.5767-02	3.621	28.93	556.9
38	2.0000	.70000-02	276.00	.5310	.6540	.5360	.5542-02	.6825-02	.5596-02	3.492	27.64	554.5
38	2.0000	.10300-01	277.00	.5040	.6200	.5120	.5254-02	.6468-02	.5337-02	3.315	26.34	553.7
38	2.0000	.15100-01	278.00	.5270	.6480	.5390	.5493-02	.6759-02	.5628-02	3.475	27.25	552.0
38	2.0000	.19900-01	279.00	.3230	.3970	.3350	.3368-02	.4140-02	.3490-02	2.139	20.48	549.6
38	2.0000	.23200-01	280.00	.1130	.1380	.1170	.1177-02	.1437-02	.1225-02	.7700	8.230	530.4
38	2.0000	.26300-01	281.00	.2900	.3570	.3040	.3028-02	.3725-02	.3176-02	1.917	22.39	551.7
38	2.0000	.29900-01	282.00	.2960	.3640	.3120	.3087-02	.3794-02	.3252-02	1.963	18.97	548.8
38	2.0000	.33800-01	283.00	.2650	.3250	.2810	.2763-02	.3391-02	.2935-02	1.766	17.02	545.4
38	2.0000	.38100-01	284.00	.2420	.2970	.2590	.2527-02	.3102-02	.2704-02	1.616	15.65	545.3
38	2.0000	.41400-01	285.00	.2290	.2810	.2460	.2390-02	.2933-02	.2571-02	1.528	14.79	545.3
38	2.0000	.45200-01	286.00	.2260	.2770	.2450	.2357-02	.2891-02	.2554-02	1.511	14.03	543.4
38	2.0000	.50300-01	287.00	.2050	.2520	.2250	.2144-02	.2631-02	.2343-02	1.370	13.27	545.4
38	2.0000	.15000	289.00	.1110	.1360	.1270	.1158-02	.1417-02	.1322-02	.7490	5.580	537.8
38	2.0000	.20000	290.00	.9500-01	.1170	.1100	.9940-03	.1217-02	.1144-02	.6420	5.510	539.0
38	2.0000	.25000	291.00	.8700-01	.1070	.1010	.9097-03	.1115-02	.1055-02	.5850	4.780	542.0
38	2.0000	.30000	292.00	.6800-01	.8300-01	.7900-01	.7067-03	.8662-03	.8191-03	.4550	3.690	541.4
38	2.0000	.35000	293.00	.8700-01	.1060	.1010	.9035-03	.1110-02	.1049-02	.5760	4.900	547.6
38	2.0000	.40000	294.00	.8090-01	.9900-01	.9300-01	.8395-03	.1031-02	.9742-03	.5360	4.320	545.9
38	2.0000	.45000	295.00	.7400-01	.9000-01	.8600-01	.7695-03	.9435-03	.8921-03	.4940	3.770	542.4
38	2.0000	.00000	367.00	.4720	.5820	.0000	.4944-02	.6085-02	.0000	3.119	26.31	552.7
39	3.0000	.80000-03	145.00	.3480	.4260	.0000	.3631-02	.4447-02	.0000	2.345	17.46	538.8
38	3.0000	.23000-02	146.00	.3600	.4410	.0000	.3754-02	.4599-02	.0000	2.421	17.67	539.7
38	3.0000	.43000-02	147.00	.2740	.3350	.0000	.2856-02	.3494-02	.0000	1.852	13.81	536.1
38	3.0000	.68000-02	148.00	.2280	.2790	.0000	.2379-02	.2906-02	.0000	1.554	11.24	531.6

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
38	3.0000	.95000-02	149.00	.1800	.2200	.0000	.1883-02	.2298-02	.0000	1.236	8.620	528.2
38	3.0000	.12200-01	150.00	.1580	.1930	.0000	.1652-02	.2016-02	.0000	1.083	7.620	529.0
38	3.0000	.21800-01	151.00	.1050	.1280	.0000	.1098-02	.1339-02	.0000	.7230	5.190	526.3
38	3.0000	.25100-01	152.00	.1110	.1350	.0000	.1153-02	.1406-02	.0000	.7580	5.640	526.7
38	3.0000	.28600-01	153.00	.1000+00	.1210	.0000	.1038-02	.1266-02	.0000	.6830	5.640	527.0
38	3.0000	.35400-01	155.00	.1050	.1280	.0000	.1097-02	.1338-02	.0000	.7230	5.800	526.3
38	3.0000	.38700-01	156.00	.8600-01	.1040	.0000	.8932-03	.1089-02	.0000	.5880	4.780	526.0
38	3.0000	.42000-01	157.00	.8600-01	.1050	.0000	.8978-03	.1095-02	.0000	.5910	4.850	526.2
38	3.0000	.46200-01	158.00	.7900-01	.9700-01	.0000	.8289-03	.1011-02	.0000	.5460	4.480	526.1
38	3.0000	.50300-01	159.00	.8200-01	.1000+00	.0000	.8581-03	.1046-02	.0000	.5650	5.080	526.4
39	4.0000	.50000-01	297.00	.1040	.1280	.0000	.1093-02	.1336-02	.0000	.7130	5.960	531.7
39	4.0000	.75000-01	298.00	.7700-01	.9400-01	.0000	.8053-03	.9842-03	.0000	.5240	4.350	532.5
39	4.0000	.10000+00	299.00	.6300-01	.7700-01	.0000	.6590-03	.8050-03	.0000	.4300	3.470	531.3
39	4.0000	.12500	300.00	.4800-01	.5900-01	.0000	.5029-03	.6140-03	.0000	.3290	2.930	529.7
39	4.0000	.15000	301.00	.5000-01	.6100-01	.0000	.5224-03	.6379-03	.0000	.3410	2.740	530.0
39	4.0000	.20000	303.00	.4500-01	.5500-01	.0000	.4713-03	.5749-03	.0000	.3090	2.480	527.2
39	4.0000	.22500	304.00	.2400-01	.3000-01	.0000	.2560-03	.3122-03	.0000	.1680	1.850	526.2
39	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.1495-03	.1822-03	.0000	.9900-01	.7900	523.1
39	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.7169-05	.8728-05	.0000	.5000-02	.4000-01	521.0
39	4.0000	.37500	308.00	.1000-02	.2000-02	.0000	.1376-04	.1675-04	.0000	.9000-02	.7000-01	521.7
39	4.0000	.42500	309.00	.1000-02	.2000-02	.0000	.1545-04	.1880-04	.0000	.1000-01	.8000-01	519.5
39	5.0000	.20000	311.00	.2400-01	.2900-01	.0000	.2462-03	.2997-03	.0000	.1630	1.600	520.1
39	5.0000	.22500	312.00	.2000-01	.2500-01	.0000	.2140-03	.2604-03	.0000	.1420	1.280	519.5
39	5.0000	.25000	313.00	.1700-01	.2000-01	.0000	.1742-03	.2120-03	.0000	.1160	.8800	519.0
39	5.0000	.27500	314.00	.2000-01	.2400-01	.0000	.2080-03	.2531-03	.0000	.1380	1.120	519.3
39	5.0000	.30000	315.00	.2500-01	.3000-01	.0000	.2579-03	.3138-03	.0000	.1710	1.260	518.9
39	5.0000	.32500	316.00	.1300-01	.1600-01	.0000	.1353-03	.1647-03	.0000	.9000-01	.7300	518.8
39	5.0000	.35000	317.00	.9000-02	.1100-01	.0000	.9257-04	.1126-03	.0000	.6200-01	.4500	518.4
39	5.0000	.37500	318.00	.5000-02	.5000-02	.0000	.5453-04	.6633-04	.0000	.3600-01	.2700	518.4
39	5.0000	.40000	319.00	.4000-02	.4000-02	.0000	.3638-04	.4498-04	.0000	.2500-01	.2000	517.9
39	5.0000	.47500	322.00	.2000-02	.3000-02	.0000	.2183-04	.2652-04	.0000	.1500-01	.1300	515.1
39	6.0000	.20000	323.00	.2200-01	.2700-01	.0000	.2333-03	.2840-03	.0000	.1550	1.350	520.8
39	6.0000	.22500	324.00	.2500-01	.3100-01	.0000	.2645-03	.3219-03	.0000	.1750	1.480	520.4
39	6.0000	.27500	326.00	.1300-01	.1600-01	.0000	.1370-03	.1666-03	.0000	.9100-01	.7900	518.8
39	6.0000	.30000	327.00	.1700-01	.2000-01	.0000	.1745-03	.2123-03	.0000	.1160	.9200	518.6
39	6.0000	.32500	328.00	.3900-01	.3700-01	.0000	.3164-03	.3851-03	.0000	.2100	1.900	520.6
39	6.0000	.35000	329.00	.2500-01	.3000-01	.0000	.2591-03	.3152-03	.0000	.1720	1.270	519.2
39	6.0000	.37500	330.00	.1300-01	.1500-01	.0000	.1316-03	.1601-03	.0000	.8700-01	.7000	519.0
39	6.0000	.40000	331.00	.7000-02	.9000-02	.0000	.7634-04	.9285-04	.0000	.5100-01	.4300	517.7
39	6.0000	.42500	332.00	.8000-02	.1000-01	.0000	.8815-04	.1072-03	.0000	.5900-01	.4800	516.4
39	7.0000	.22500	334.00	.2200-01	.2700-01	.0000	.2345-03	.2853-03	.0000	.1560	1.380	519.1
39	7.0000	.25000	335.00	.8000-02	.1000-01	.0000	.8215-04	.9995-04	.0000	.5500-01	.4300	519.1
39	7.0000	.27500	336.00	.1100-01	.1400-01	.0000	.1187-03	.1443-03	.0000	.7900-01	.6800	518.0

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HA06)

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
39	7.0000	.30000	337.00	.1100-01	.1300-01	.0000	.1131-03	.1375-03	.0000	.7500-01	.5500	517.4
39	7.0000	.32500	338.00	.1500-01	.1800-01	.0000	.1583-03	.1925-03	.0000	.1050	.8800	518.0
39	7.0000	.35000	339.00	.2400-01	.3000-01	.0000	.2560-03	.3115-03	.0000	.1700	1.270	518.8
39	7.0000	.40000	341.00	.2100-01	.2600-01	.0000	.2238-03	.2723-03	.0000	.1490	1.200	519.0
39	7.0000	.45000	343.00	.1400-01	.1700-01	.0000	.1444-03	.1756-03	.0000	.9600-01	.7900	517.!
39	8.0000	.50000-01	351.00	.6000-01	.7300-01	.0000	.6263-03	.7646-03	.0000	.4100	3.390	529.4
39	8.0000	.75000-01	352.00	.4700-01	.5700-01	.0000	.4892-03	.5963-03	.0000	.3220	2.700	524.8
39	8.0000	.12500	354.00	.3600-01	.4300-01	.0000	.3719-03	.4529-03	.0000	.2460	2.070	522.1
39	8.0000	.15000	355.00	.3000-01	.3600-01	.0000	.3101-03	.3776-03	.0000	.2050	1.690	522.3
39	8.0000	.17500	356.00	.3200-01	.3800-01	.0000	.3303-03	.4023-03	.0000	.2190	1.580	522.0
39	8.0000	.20000	357.00	.3000-01	.3600-01	.0000	.3121-03	.3800-03	.0000	.2070	1.780	521.7
40	9.0000	.61900-01	161.00	.1000-01	.1300-01	.0000	.1075-03	.1308-03	.0000	.7100-01	.6100	518.9
40	9.0000	.70900-01	162.00	.1000-01	.1300-01	.0000	.1076-03	.1309-03	.0000	.7100-01	.7600	519.0
40	9.0000	.80700-01	163.00	.1000-01	.1200-01	.0000	.1009-03	.1228-03	.0000	.6700-01	.5500	518.0
40	9.0000	.94300-01	164.00	.1100-01	.1300-01	.0000	.1132-03	.1377-03	.0000	.7500-01	.5800	517.6
40	9.0000	.97800-01	165.00	.9000-02	.1100-01	.0000	.9353-04	.1138-03	.0000	.6200-01	.5000	518.0
40	9.0000	.10130	166.00	.8000-02	.1000-01	.0000	.8461-04	.1029-03	.0000	.5600-01	.4400	517.7
40	10.000	.61900-01	167.00	.9000-02	.1200-01	.0000	.9893-04	.1203-03	.0000	.6600-01	.4900	517.6
40	10.000	.70900-01	168.00	.8000-02	.1000-01	.0000	.8352-04	.1016-03	.0000	.5600-01	.5300	517.6
40	10.000	.80700-01	169.00	.7000-02	.9000-02	.0000	.7421-04	.9024-04	.0000	.4900-01	.4100	517.1
40	10.000	.94300-01	170.00	.9000-02	.1000-01	.0000	.8500-04	.1083-03	.0000	.5900-01	.4800	517.7
40	10.000	.97800-01	171.00	.9000-02	.1100-01	.0000	.9040-04	.1099-03	.0000	.6000-01	.5000	517.7
40	10.000	.10130	172.00	.7000-02	.9000-02	.0000	.7803-04	.9490-04	.0000	.5200-01	.4000	517.5
40	11.000	.80700-01	173.00	.4000-02	.5000-02	.0000	.4524-04	.5502-04	.0000	.3000-01	.2300	517.3
40	11.000	.94300-01	174.00	.4000-02	.4000-02	.0000	.3733-04	.4540-04	.0000	.2500-01	.2200	516.9
40	11.000	.97E00-01	175.00	.5000-02	.6000-02	.0000	.5221-04	.6348-04	.0000	.3500-01	.2400	516.5
40	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.4782-04	.5815-04	.0000	.3200-01	.2400	516.6

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
65	7.930	35.06	164.5	1227.	90.30	.1780-01	.7850	3695.	.5328-03	.7270-07	.8420	.1431-01

RUN NUMBER	STN NO REF(R) =.040
65	.2935-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
65	2.0000	.10000-02	273.00	.5810	.7130	.5950	.8319-02	.1020-01	.8512-02	5.528	45.37	562.1
65	2.0000	.18000-02	274.00	.5850	.7180	.5920	.8374-02	.1027-01	.8463-02	5.570	45.22	561.5
65	2.0000	.41000-02	275.00	.5570	.6830	.5570	.7970-02	.9778-02	.7970-02	5.286	42.10	563.4
65	2.0000	.70000-02	276.00	.5430	.6660	.5490	.7773-02	.9525-02	.7849-02	5.184	40.92	559.8
65	2.0000	.10300-01	277.00	.5080	.6220	.5160	.7265-02	.8900-02	.7378-02	4.853	38.47	558.7
65	2.0000	.15100-01	278.00	.5370	.6570	.5500	.7679-02	.9397-02	.7862-02	5.151	40.31	555.8
65	2.0000	.19900-01	279.00	.3300	.4040	.3420	.4720-02	.5776-02	.4837-02	3.168	30.25	555.4
65	2.0000	.23200-01	280.00	.1120	.1360	.1170	.1608-02	.1952-02	.1672-02	1.119	11.96	530.5
65	2.0000	.26300-01	281.00	.2920	.3570	.3060	.4175-02	.5113-02	.4374-02	2.792	32.51	557.9
65	2.0000	.29900-01	282.00	.3000	.3670	.3150	.4299-02	.5257-02	.4524-02	2.893	27.89	553.7
65	2.0000	.33600-01	283.00	.2650	.3240	.2820	.3798-02	.4637-02	.4029-02	2.575	24.78	548.7
65	2.0000	.38100-01	284.00	.2450	.2990	.2620	.3511-02	.4284-02	.3750-02	2.387	23.09	546.9
65	2.0000	.41400-01	285.00	.2320	.2830	.2490	.3318-02	.4049-02	.3563-02	2.255	21.81	547.1
65	2.0000	.45200-01	286.00	.2280	.2780	.2460	.3259-02	.3974-02	.3525-02	2.223	20.62	544.7
65	2.0000	.50300-01	287.00	.2080	.2540	.2270	.2972-02	.3628-02	.3241-02	2.017	19.50	548.1
65	2.0000	.15000	289.00	.1120	.1360	.1270	.1628-02	.1945-02	.1819-02	1.097	8.170	540.0
65	2.0000	.20000	290.00	.9700-01	.1190	.1120	.1392-02	.1696-02	.1596-02	.9530	8.170	542.5
65	2.0000	.25000	291.00	.8400-01	.1020	.9700-01	.1200-02	.1466-02	.1388-02	.8140	6.630	548.6
65	2.0000	.30000	292.00	.6500-01	.8000-01	.7500-01	.9324-03	.1138-02	.1078-02	.6330	5.110	548.1
65	2.0000	.35000	293.00	.8300-01	.1020	.9700-01	.1193-02	.1462-02	.1382-02	.7960	6.740	559.7
65	2.0000	.40000	294.00	.7900-01	.9700-01	.9100-01	.1129-02	.1383-02	.1308-02	.7530	6.040	559.1
65	2.0000	.45000	295.00	.7000-01	.8500-01	.8000-01	.9945-03	.1217-02	.1151-02	.6680	5.070	554.6

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA06)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
65	3.0000	.80000-03	145.00	.3470	.4220	.0000	.4962-02	.6044-02	.0000	3.401	25.30	541.2
65	3.0000	.23000-02	146.00	.3660	.4460	.0000	.5233-02	.6374-02	.0000	3.586	26.14	541.4
65	3.0000	.43000-02	147.00	.2820	.3420	.0000	.4028-02	.4895-02	.0000	2.788	20.80	534.5
65	3.0000	.63000-02	148.00	.2270	.2760	.0000	.3250-02	.3943-02	.0000	2.270	16.45	528.1
65	3.0000	.95000-02	149.00	.1780	.2150	.0000	.2543-02	.3082-02	.0000	1.786	12.48	524.4
65	3.0000	.12200-01	150.00	.1660	.2010	.0000	.2371-02	.2874-02	.0000	1.662	11.72	525.7
65	3.0000	.21800-01	151.00	.1070	.1290	.0000	.1528-02	.1850-02	.0000	1.076	7.750	522.0
65	3.0000	.25100-01	152.00	.1110	.1340	.0000	.1583-02	.1916-02	.0000	1.116	8.320	521.8
65	3.0000	.29600-01	153.00	.9900-01	.1200	.0000	.1421-02	.1721-02	.0000	1.001	8.290	522.4
65	3.0000	.35400-01	155.00	.8500-01	.1040	.0000	.1234-02	.1493-02	.0000	.8700	7.000	521.4
65	3.0000	.38700-01	156.00	.8500-01	.1030	.0000	.1212-02	.1468-02	.0000	.8540	6.950	522.2
65	3.0000	.42000-01	157.00	.8400-01	.1020	.0000	.1204-02	.1458-02	.0000	.8480	6.970	522.5
65	3.0000	.46200-01	158.00	.8100-01	.9800-01	.0000	.1156-02	.1400-02	.0000	.8140	6.690	522.7
65	3.0000	.50300-01	159.00	.8100-01	.9800-01	.0000	.1157-02	.1401-02	.0000	.8140	7.330	523.2

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) = .040
10	.2123-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. /SEC	TW DEG. R
10	9.0000	.61900-01	161.00	.1100-01	.1300-01	.0000	.2191-03	.2638-03	.0000	.1650	1.400	523.3
10	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.2102-03	.2532-03	.0000	.1580	1.680	524.3
10	9.0000	.80700-01	163.00	.1100-01	.1400-01	.0000	.2303-03	.2771-03	.0000	.1740	1.430	522.1
10	9.0000	.94300-01	164.00	.1500-01	.1800-01	.0000	.3060-03	.3683-03	.0000	.2310	1.780	522.4
10	9.0000	.97800-01	165.00	.1200-01	.1400-01	.0000	.2423-03	.2916-03	.0000	.1830	1.460	521.9
10	9.0000	.10130	166.00	.1100-01	.1400-01	.0000	.2308-03	.2777-03	.0000	.1750	1.370	521.4
10	10.000	.61900-01	167.00	.1000-01	.1200-01	.0000	.2037-03	.2452-03	.0000	.1540	1.140	523.1
10	10.000	.70900-01	168.00	.9000-02	.1100-01	.0000	.1919-03	.2310-03	.0000	.1450	1.390	523.7
10	10.000	.80700-01	169.00	.1000-01	.1200-01	.0000	.1963-03	.2362-03	.0000	.1480	1.230	522.3
10	10.000	.94300-01	170.00	.1500-01	.1900-01	.0000	.3148-03	.3791-03	.0000	.2370	1.910	523.8
10	10.000	.97800-01	171.00	.1700-01	.2100-01	.0000	.3480-03	.4189-03	.0000	.2630	2.190	522.6
10	10.000	.10130	172.00	.1400-01	.1700-01	.0000	.2895-03	.3485-03	.0000	.2180	1.690	522.9
10	11.000	.80700-01	173.00	.4000-02	.4000-02	.0000	.7189-04	.8653-04	.0000	.5400-01	.4100	522.3
10	11.000	.94300-01	174.00	.4000-02	.5000-02	.0000	.7646-04	.9201-04	.0000	.5800-01	.5100	521.6
10	11.000	.97800-01	175.00	.6000-02	.7000-02	.0000	.1255-03	.1510-03	.0000	.9500-01	.6700	521.4
10	11.000	.10130	176.00	.7000-02	.8000-02	.0000	.1404-03	.1690-03	.0000	.1060	.7800	521.6

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
29	7.880	37.46	85.75	1208.	90.00	.9690-02	.4210	3665.	.2905-03	.7242-07	.4570	.1045-01
30	7.880	37.45	86.40	1207.	89.90	.9760-02	.4240	3663.	.2930-03	.7236-07	.4610	.1049-01
31	7.880	37.46	85.00	1205.	89.80	.9500-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
29	.3967-01
30	.3951-01
31	.3979-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
30	1.0000	.00000	367.00	.4350	.5330	.0000	.4564-02	.5585-02	.0000	3.013	25.49	546.6
30	1.0000	.80000-03	368.00	.3000	.3660	.0000	.3148-02	.3837-02	.0000	2.114	16.66	535.1
30	1.0000	.19000-02	369.00	.1460	.1770	.0000	.1529-02	.1860-02	.0000	1.037	8.890	528.3
30	1.0000	.37000-02	370.00	.1010	.1220	.0000	.1054-02	.1281-02	.0000	.7200	5.930	524.3
30	1.0000	.87000-02	372.00	.5100-01	.6200-01	.0000	.5347-03	.6490-03	.0000	.3660	3.080	521.3
30	1.0000	.11800-01	373.00	.3800-01	.4600-01	.0000	.4005-03	.4858-03	.0000	.2750	2.120	519.4
30	1.0000	.15100-01	374.00	.3100-01	.3800-01	.0000	.3275-03	.3972-03	.0000	.2250	1.730	519.5
30	1.0000	.18200-01	375.00	.2700-01	.3300-01	.0000	.2826-03	.3427-03	.0000	.1940	1.430	518.7
30	1.0000	.21500-01	376.00	.1900-01	.2400-01	.0000	.2041-03	.2475-03	.0000	.1410	1.090	518.1
30	1.0000	.24600-01	377.00	.2000-01	.2400-01	.0000	.2085-03	.2527-03	.0000	.1440	1.130	517.7
30	1.0000	.27800-01	378.00	.1400-01	.1700-01	.0000	.1492-03	.1810-03	.0000	.1030	.8900	518.4
30	1.0000	.60900-01	379.00	.1300-01	.1600-01	.0000	.1365-03	.1654-03	.0000	.9400-01	.7700	517.5
30	1.0000	.64600-01	380.00	.1000-01	.1200-01	.0000	.1050-03	.1272-03	.0000	.7200-01	.7100	516.6
30	1.0000	.68400-01	381.00	.1200-01	.1500-01	.0000	.1263-03	.1531-03	.0000	.8700-01	.6800	516.6
30	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.1119-03	.1357-03	.0000	.7700-01	.6000	516.6
30	1.0000	.79100-01	384.00	.1000-01	.1200-01	.0000	.1069-03	.1295-03	.0000	.7400-01	.5300	516.5
30	1.0000	.94300-01	385.00	.1100-01	.1300-01	.0000	.1141-03	.1382-03	.0000	.7900-01	.6200	516.5
30	1.0000	.97800-01	386.00	.1100-01	.1400-01	.0000	.1175-03	.1424-03	.0000	.8100-01	.6900	516.5

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
30	1.0000	.10190	387.00	.1200-01	.1400-01	.0000	.1236-03	.1498-03	.0000	.8500-01	.7000	517.1
30	1.0000	.11600	388.00	.1600-01	.2000-01	.0000	.1728-03	.2095-03	.0000	.1190	1.260	517.8
30	1.0000	.11950	389.00	.2200-01	.2700-01	.0000	.2341-03	.2838-03	.0000	.1610	1.120	517.5
30	1.0000	.13050	392.00	.2600-01	.3200-01	.0000	.2775-03	.3364-03	.0000	.1910	1.130	516.9
30	1.0000	.13380	393.00	.2800-01	.3400-01	.0000	.2904-03	.3522-03	.0000	.2000	1.190	518.7
30	1.0000	.13760	394.00	.2300-01	.2800-01	.0000	.2405-03	.2915-03	.0000	.1660	1.000	517.3
30	1.0000	.14110	395.00	.2600-01	.3100-01	.0000	.2706-03	.3280-03	.0000	.1870	1.260	517.2
30	1.0000	.14480	396.00	.2500-01	.3000-01	.0000	.2605-03	.3158-03	.0000	.1800	1.220	517.4
30	1.0000	.14830	397.00	.2700-01	.3300-01	.0000	.2845-03	.3449-03	.0000	.1960	1.330	517.5
30	1.0000	.15190	398.00	.3200-01	.3800-01	.0000	.3321-03	.4026-03	.0000	.2290	1.640	517.7
30	1.0000	.15560	399.00	.3200-01	.3900-01	.0000	.3359-03	.4072-03	.0000	.2310	1.750	517.7
30	1.0000	.15820	400.00	.8200-01	.9900-01	.0000	.8592-03	.1043-02	.0000	.5890	4.390	521.3
30	1.0000	.16080	401.00	.8100-01	.9900-01	.0000	.8532-03	.1036-02	.0000	.5840	4.530	522.4
30	1.0000	.16350	402.00	.8300-01	.1010	.0000	.8687-03	.1055-02	.0000	.5930	4.790	523.6
30	1.0000	.16640	403.00	.8400-01	.1020	.0000	.8787-03	.1067-02	.0000	.6010	4.980	522.4
30	2.0000	.00000	367.00	.4350	.5330	.0000	.4564-02	.5585-02	.0000	3.013	25.49	546.6
29	2.0000	.10000-02	273.00	.5410	.6630	.5560	.5648-02	.6928-02	.5813-02	3.694	30.44	553.7
29	2.0000	.18000-02	274.00	.5700	.7000	.5790	.5961-02	.7310-02	.6048-02	3.893	31.78	553.5
29	2.0000	.41000-02	275.00	.5380	.6600	.5390	.5621-02	.6899-02	.5623-02	3.665	29.31	555.6
29	2.0000	.70000-02	276.00	.5260	.6450	.5290	.5497-02	.6741-02	.5532-02	3.596	28.48	553.5
29	2.0000	.10300-01	277.00	.4970	.6090	.5030	.5193-02	.6367-02	.5252-02	3.400	27.03	552.9
29	2.0000	.15100-01	278.00	.5330	.6530	.5430	.5565-02	.6820-02	.5669-02	3.653	28.65	551.2
29	2.0000	.19900-01	279.00	.3270	.4000	.3360	.3416-02	.4182-02	.3515-02	2.253	21.52	548.3
29	2.0000	.23200-01	280.00	.1130	.1380	.1170	.1183 02	.1439-02	.1222-02	.8020	8.570	529.5
29	2.0000	.26300-01	281.00	.2970	.3640	.3090	.3103-02	.3801-02	.3228-02	2.041	23.86	550.1
29	2.0000	.29900-01	282.00	.3070	.3760	.3210	.3212-02	.3930-02	.3356-02	2.123	20.53	546.8
29	2.0000	.33800-01	283.00	.2690	.3290	.2830	.2814-02	.3438-02	.2962-02	1.870	18.05	543.0
29	2.0000	.38100-01	284.00	.2480	.3020	.2620	.2568-02	.3160-02	.2741-02	1.724	16.72	541.3
29	2.0000	.41400-01	285.00	.2360	.2890	.2520	.2469-02	.3015-02	.2629-02	1.645	15.95	541.3
29	2.0000	.45200-01	286.00	.2340	.2850	.2510	.2450-02	.2991-02	.2628-02	1.636	15.21	540.1
29	2.0000	.50300-01	287.00	.2150	.2630	.2320	.2246-02	.2743-02	.2427-02	1.495	14.50	542.0
29	2.0000	.15000	289.00	.1150	.1400	.1300	.1205-02	.1467-02	.1358-02	.8150	6.090	531.5
29	2.0000	.20000	290.00	.9800-01	.1190	.1110	.1023-02	.1246-02	.1160-02	.6910	5.960	532.3
29	2.0000	.25000	291.00	.9100-01	.1110	.1040	.9522-03	.1160-02	.1087-02	.6420	5.260	533.9
29	2.0000	.30000	292.00	.6900-01	.8400-01	.7900-01	.7211-03	.8782-03	.8231-03	.4870	3.970	532.7
29	2.0000	.35000	293.00	.9000-01	.1100	.1030	.9428-03	.1151-02	.1078-02	.6300	5.390	539.9
29	2.0000	.40000	294.00	.8300-01	.1010	.9500-01	.8647-03	.1055-02	.9885-03	.5780	4.670	539.4
29	2.0000	.45000	295.00	.7100-01	.8700-01	.8100-01	.7444-03	.9080-03	.8506-03	.4990	3.820	537.4
30	3.0000	.00000	367.00	.4350	.5330	.0000	.4564-02	.5585-02	.0000	3.013	25.49	546.6
29	3.0000	.80000-03	145.00	.3120	.3810	.0000	.3259-02	.3976-02	.0000	2.182	16.25	538.3
29	3.0000	.23000-02	146.00	.3360	.4100	.0000	.3515-02	.4288-02	.0000	2.355	17.20	537.7
29	3.0000	.43000-02	147.00	.2620	.3190	.0000	.2733-02	.3330-02	.0000	1.841	13.74	534.1
29	3.0000	.68000-02	148.00	.2040	.2480	.0000	.2130-02	.2591-02	.0000	1.443	10.45	529.9

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
29	3.0000	.95000-02	149.00	.1630	.1980	.0000	.1700-02	.2067-02	.0000	1.158	8.080	526.7
29	3.0000	.12200-01	150.00	.1500	.1830	.0000	.1569-02	.1907-02	.0000	1.067	7.510	527.5
29	3.0000	.21800-01	151.00	.8600-01	.1040	.0000	.8983-03	.1091-02	.0000	.6130	4.410	524.9
29	3.0000	.25100-01	152.00	.1050	.1270	.0000	.1096-02	.1332-02	.0000	.7480	5.570	525.3
29	3.0000	.28600-01	153.00	.9000-01	.1090	.0000	.9400-03	.1142-02	.0000	.6410	5.300	525.7
29	3.0000	.35400-01	155.00	.7600-01	.9300-01	.0000	.7994-03	.9712-03	.0000	.5460	4.380	525.2
29	3.0000	.38700-01	156.00	.7900-01	.9500-01	.0000	.8203-03	.9965-03	.0000	.5600	4.550	524.6
29	3.0000	.42000-01	157.00	.7600-01	.9300-01	.0000	.7959-03	.9668-03	.0000	.5440	4.460	524.8
29	3.0000	.46200-01	158.00	.7300-01	.8900-01	.0000	.7639-03	.9280-03	.0000	.5220	4.280	524.6
29	3.0000	.50300-01	159.00	.6900-01	.8300-01	.0000	.7182-03	.8724-03	.0000	.4900	4.410	524.7
30	4.0000	.50000-01	297.00	.1030	.1250	.0000	.1081-02	.1314-02	.0000	.7350	6.170	526.7
30	4.0000	.75000-01	298.00	.7400-01	.9000-01	.0000	.7793-03	.9475-03	.0000	.5300	4.410	527.1
30	4.0000	.10000+00	299.00	.6600-01	.8000-01	.0000	.6888-03	.8371-03	.0000	.4690	3.790	525.8
30	4.0000	.12500	300.00	.5000-01	.6100-01	.0000	.5276-03	.6410-03	.0000	.3600	3.210	524.4
30	4.0000	.15000	301.00	.5300-01	.6400-01	.0000	.5563-03	.6758-03	.0000	.3790	3.050	524.5
30	4.0000	.20000	303.00	.4900-01	.6000-01	.0000	.5173-03	.6279-03	.0000	.3540	2.850	521.8
30	4.0000	.22500	304.00	.2500-01	.3100-01	.0000	.2652-03	.3231-03	.0000	.1820	2.000	521.5
30	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.1477-03	.1791-03	.0000	.1010	.8100	519.5
30	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.1216-04	.1474-04	.0000	.8000-02	.8000-01	518.2
30	4.0000	.37500	308.00	.1000-02	.2000-02	.0000	.1403-04	.1702-04	.0000	.1000-01	.8000-01	519.3
30	5.0000	.20000	311.00	.2600-01	.3200-01	.0000	.2739-03	.3320-03	.0000	.1890	1.850	518.0
30	5.0000	.22500	312.00	.2200-01	.2700-01	.0000	.2324-03	.2818-03	.0000	.1600	1.440	518.4
30	5.0000	.25000	313.00	.1900-01	.2300-01	.0000	.2001-03	.2425-03	.0000	.1380	1.050	517.1
30	5.0000	.27500	314.00	.2200-01	.2700-01	.0000	.2357-03	.2858-03	.0000	.1620	1.310	517.7
30	5.0000	.30000	315.00	.2500-01	.3000-01	.0000	.2591-03	.3129-03	.0000	.1780	1.300	517.7
30	5.0000	.32500	316.00	.1100-01	.1300-01	.0000	.1164-03	.1411-03	.0000	.8000-01	.6500	517.5
30	5.0000	.35000	317.00	.1000-02	.1000-02	.0000	.1078-04	.1306-04	.0000	.7000-02	.5000-01	517.3
30	5.0000	.37500	318.00	.5000-02	.6000-02	.0000	.5441-04	.6596-04	.0000	.3800-01	.2800	517.5
30	5.0000	.40000	319.00	.3000-02	.4000-02	.0000	.3489-04	.4229-04	.0000	.2400-01	.2000	517.1
30	5.0000	.47500	322.00	.2000-02	.3000-02	.0000	.2370-04	.2870-04	.0000	.1600-01	.1400	514.3
30	6.0000	.20000	323.00	.2600-01	.3200-01	.0000	.2730-03	.3312-03	.0000	.1870	1.630	519.9
30	6.0000	.22500	324.00	.1500-01	.1800-01	.0000	.1573-03	.1908-03	.0000	.1080	.9100	519.9
30	6.0000	.27500	326.00	.1400-01	.1700-01	.0000	.1465-03	.1776-03	.0000	.1010	.8700	518.5
30	6.0000	.30000	327.00	.2400-01	.2900-01	.0000	.2468-03	.2992-03	.0000	.1700	1.340	518.2
30	6.0000	.32500	328.00	.3500-01	.4200-01	.0000	.3629-03	.4402-03	.0000	.2490	2.260	519.8
30	6.0000	.35000	329.00	.1900-01	.2300-01	.0000	.1995-03	.2419-03	.0000	.1370	1.010	518.5
30	6.0000	.37500	330.00	.1300-01	.1600-01	.0000	.1376-03	.1668-03	.0000	.9500-01	.7600	518.8
30	6.0000	.40000	331.00	.8000-02	.9000-02	.0000	.8121-04	.9845-04	.0000	.5600-01	.4700	517.6
30	6.0000	.42500	332.00	.8000-02	.1000-01	.0000	.8227-04	.9970-04	.0000	.5700-01	.4600	516.4
30	6.0000	.45000	333.00	.9000-02	.1100-01	.0000	.9353-04	.1133-03	.0000	.6500-01	.5400	515.4
30	7.0000	.22500	334.00	.2800-01	.3400-01	.0000	.2905-03	.3524-03	.0000	.2000	1.770	519.4
30	7.0000	.25000	335.00	.2100-01	.2600-01	.0000	.2235-03	.2712-03	.0000	.1540	1.200	519.9
30	7.0000	.27500	336.00	.1800-01	.2100-01	.0000	.1850-03	.2243-03	.0000	.1270	1.100	518.6

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA07)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
30	7.0000	.30000	337.00	.1100-01	.1300-01	.0000	.1136-03	.1377-03	.0000	.7800-01	.5700	517.8
30	7.0000	.32500	338.00	.2200-01	.2700-01	.0000	.2348-03	.2847-03	.0000	.1620	1.360	518.3
30	7.0000	.35000	339.00	.2900-01	.3500-01	.0000	.2999-03	.3637-03	.0000	.2060	1.540	519.0
30	7.0000	.40000	341.00	.2400-01	.3000-01	.0000	.2556-03	.3099-03	.0000	.1760	1.420	518.6
30	7.0000	.45000	343.00	.1700-01	.2100-01	.0000	.1821-03	.2208-03	.0000	.1260	1.030	517.3
30	8.0000	.50000-01	351.00	.9100-01	.1110	.0000	.9593-03	.1166-02	.0000	.6540	5.420	525.4
30	8.0000	.75000-01	352.00	.4800-01	.5800-01	.0000	.5052-03	.6131-03	.0000	.3460	2.900	521.2
30	8.0000	.12500	354.00	.4300-01	.5200-01	.0000	.4479-03	.5435-03	.0000	.3070	2.580	520.9
30	8.0000	.15000	355.00	.3400-01	.4100-01	.0000	.3516-03	.4268-03	.0000	.2410	1.990	521.9
30	8.0000	.17500	356.00	.3900-01	.4600-01	.0000	.3977-03	.4828-03	.0000	.2720	1.970	522.2
30	8.0000	.20000	357.00	.2800-01	.3400-01	.0000	.2976-03	.3612-03	.0000	.2040	1.750	521.9
31	9.0000	.61900-01	161.00	.9000-02	.1000-01	.0000	.8893-04	.1079-03	.0000	.6100-01	.5200	518.6
31	9.0000	.70900-01	162.00	.8000-02	.1000-01	.0000	.8575-04	.1040-03	.0000	.5900-01	.6300	518.6
31	9.0000	.80700-01	163.00	.8000-02	.9000-02	.0000	.8075-04	.9792-04	.0000	.5500-01	.4600	517.9
31	9.0000	.94300-01	164.00	.1000-01	.1300-01	.0000	.1072-03	.1300-03	.0000	.7400-01	.5700	517.8
31	9.0000	.97600-01	165.00	.8000-02	.1000-01	.0000	.8735-04	.1059-03	.0000	.6000-01	.4800	518.3
31	9.0000	.10130	166.00	.8000-02	.9000-02	.0000	.8091-04	.9812-04	.0000	.5600-01	.4400	518.1
31	10.000	.61900-01	167.00	.7000-02	.8000-02	.0000	.7173-04	.8704-04	.0000	.4900-01	.3700	517.1
31	10.000	.70900-01	168.00	.7000-02	.9000-02	.0000	.7482-04	.9072-04	.0000	.5100-01	.4900	517.3
31	10.000	.80700-01	169.00	.5000-02	.6000-02	.0000	.5365-04	.6504-04	.0000	.3700-01	.3100	516.9
31	10.000	.97900-01	171.00	.8000-02	.9000-02	.0000	.7921-04	.9606-04	.0000	.5400-01	.4500	517.9
31	10.000	.10130	172.00	.7000-02	.8000-02	.0000	.6964-04	.8445-04	.0000	.4800-01	.3700	517.8
31	11.000	.80700-01	173.00	.2000-02	.2000-02	.0000	.1921-04	.2329-04	.0000	.1300-01	.1000+00	517.1
31	11.000	.97800-01	175.00	.3000-02	.3000-02	.0000	.2642-04	.3203-04	.0000	.1800-01	.1300	516.7
31	11.000	.10130	176.00	.2000-02	.3000-02	.0000	.2473-04	.2998-04	.0000	.1700-01	.1200	516.9

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
56	7.930	37.48	163.6	1225.	90.20	.1770-01	.7810	3692.	.5308-03	.7259-07	.8390	.1426-01
57	7.930	37.47	165.4	1224.	90.10	.1790-01	.7890	3691.	.5371-03	.7253-07	.8490	.1434-01
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
56	.2940-01
57	.2922-01
58	.2900-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
57	1.0000	.00000	367.00	.4410	.5390	.0000	.6322-02	.7731-02	.0000	4.245	35.81	552.2
57	1.0000	.80000-03	368.00	.3150	.3830	.0000	.4517-02	.5497-02	.0000	3.101	24.41	537.2
57	1.0000	.19000-02	369.00	.1500	.1820	.0000	.2152-02	.2611-02	.0000	1.500	12.87	526.8
57	1.0000	.37000-02	370.00	.9700-01	.1180	.0000	.1394-02	.1687-02	.0000	.9810	8.110	519.6
57	1.0000	.87000-02	372.00	.4800-01	.5800-01	.0000	.6890-03	.8330-03	.0000	.4880	4.110	515.8
57	1.0000	.11800-01	373.00	.3600-01	.4300-01	.0000	.5126-03	.6194-03	.0000	.3640	2.810	514.0
57	1.0000	.15100-01	374.00	.2800-01	.3400-01	.0000	.3988-03	.4819-03	.0000	.2830	2.190	513.7
57	1.0000	.18200-01	375.00	.2600-01	.3100-01	.0000	.3671-03	.4435-03	.0000	.2610	1.930	513.4
57	1.0000	.21500-01	376.00	.1900-01	.2200-01	.0000	.2654-03	.3207-03	.0000	.1890	1.450	513.4
57	1.0000	.24600-01	377.00	.1900-01	.2300-01	.0000	.2732-03	.3299-03	.0000	.1940	1.530	512.4
57	1.0000	.27800-01	378.00	.1500-01	.1800-01	.0000	.2161-03	.2610-03	.0000	.1540	1.330	512.7
57	1.0000	.60900-01	379.00	.1500-01	.1800-01	.0000	.2106-03	.2544-03	.0000	.1500	1.230	512.2
57	1.0000	.64600-01	380.00	.1100-01	.1300-01	.0000	.1585-03	.1913-03	.0000	.1130	1.110	511.2
57	1.0000	.68400-01	381.00	.1200-01	.1500-01	.0000	.1734-03	.2094-03	.0000	.1230	.9600	511.7
57	1.0000	.72100-01	382.00	.1100-01	.1400-01	.0000	.1625-03	.1962-03	.0000	.1160	.8900	511.7
57	1.0000	.79100-01	384.00	.1100-01	.1300-01	.0000	.1574-03	.1901-03	.0000	.1120	.8100	511.5
57	1.0000	.94300-01	385.00	.1300-01	.1600-01	.0000	.1912-03	.2309-03	.0000	.1360	1.070	511.6
57	1.0000	.97800-01	386.00	.1400-01	.1600-01	.0000	.1937-03	.2340-03	.0000	.1380	1.180	511.8

OH103A.AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA07)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	QTWDT DEG. /SEC	TW DEG. R
57	1.0000	.10190	387.00	.1500-01	.1800-01	.0000	.2194-03	.2650-03	.0000	.1360	1.280	512.7
57	1.0000	.11600	388.00	.1800-01	.2100-01	.0000	.2519-03	.3044-03	.0000	.1790	1.900	514.2
57	1.0000	.11950	389.00	.2600-01	.3100-01	.0000	.3705-03	.4476-03	.0000	.2630	1.830	513.9
57	1.0000	.12680	391.00	.2600-01	.3200-01	.0000	.3747-03	.4527-03	.0000	.2660	1.690	513.3
57	1.0000	.13050	392.00	.3100-01	.3700-01	.0000	.4426-03	.5347-03	.0000	.3150	1.850	513.0
57	1.0000	.13380	393.00	.3100-01	.3800-01	.0000	.4459-03	.5387-03	.0000	.3170	1.890	513.5
57	1.0000	.13760	394.00	.3100-01	.3700-01	.0000	.4448-03	.5374-03	.0000	.3160	1.900	513.6
57	1.0000	.14110	395.00	.2900-01	.3600-01	.0000	.4225-03	.5104-03	.0000	.3000	2.030	513.3
57	1.0000	.14480	396.00	.2900-01	.3500-01	.0000	.4184-03	.5055-03	.0000	.2970	2.020	513.7
57	1.0000	.14830	397.00	.2900-01	.3500-01	.0000	.4182-03	.5052-03	.0000	.2970	2.030	513.2
57	1.0000	.15190	398.00	.3300-01	.4000-01	.0000	.4692-03	.5669-03	.0000	.3330	2.390	513.4
57	1.0000	.15560	399.00	.3800-01	.4600-01	.0000	.5407-03	.6533-03	.0000	.3840	2.910	513.7
57	1.0000	.15820	400.00	.9200-01	.1120	.0000	.1324-02	.1603-02	.0000	.9320	6.960	520.2
57	1.0000	.16080	401.00	.9000-01	.1090	.0000	.1286-02	.1557-02	.0000	.9030	7.010	521.6
57	1.0000	.16350	402.00	.8600-01	.1040	.0000	.1231-02	.1491-02	.0000	.8630	6.970	522.1
57	1.0000	.16640	403.00	.9000-01	.1090	.0000	.1296-02	.1569-02	.0000	.9110	7.550	520.7
57	2.0000	.00000	367.00	.4410	.5390	.0000	.6322-02	.7731-02	.0000	4.245	35.81	552.2
56	2.0000	.10000-02	273.00	.5620	.6900	.5790	.8019-02	.9842-02	.8253-02	5.302	43.49	563.5
56	2.0000	.18000-02	274.00	.5790	.7100	.5870	.8255-02	.1013-01	.8377-02	5.456	44.25	563.7
56	2.0000	.41000-02	275.00	.5530	.6790	.5530	.7884-02	.9686-02	.7886-02	5.189	41.27	566.4
56	2.0000	.70000-02	276.00	.5450	.6690	.5480	.7768-02	.9534-02	.7818-02	5.135	40.46	563.6
56	2.0000	.10300-01	277.00	.5060	.6210	.5120	.7216-02	.8855-02	.7299-02	4.775	37.76	563.0
56	2.0000	.15100-01	278.00	.5400	.6620	.5500	.7708-02	.9448-02	.7852-02	5.125	40.02	559.8
56	2.0000	.19900-01	279.00	.3440	.4210	.3540	.4906-02	.6010-02	.5049-02	3.271	31.19	557.9
56	2.0000	.23200-01	280.00	.1180	.1430	.1220	.1680-02	.2042-02	.1736-02	1.159	12.36	534.6
56	2.0000	.26300-01	281.00	.3060	.3750	.3190	.4369-02	.5355-02	.4545-02	2.906	33.81	559.5
56	2.0000	.29900-01	282.00	.3160	.3860	.3300	.4503-02	.5513-02	.4705-02	3.012	29.00	555.9
56	2.0000	.33800-01	283.00	.2760	.3380	.2910	.3942-02	.4818-02	.4149-02	2.655	25.51	551.2
56	2.0000	.38100-01	284.00	.2550	.3110	.2700	.3631-02	.4434-02	.3846-02	2.453	23.71	548.9
56	2.0000	.41400-01	285.00	.2430	.2970	.2590	.3472-02	.4240-02	.3696-02	2.347	22.68	548.6
56	2.0000	.45200-01	286.00	.2400	.2930	.2570	.3424-02	.4177-02	.3670-02	2.325	21.57	545.5
56	2.0000	.50300-01	287.00	.2260	.2750	.2440	.3217-02	.3927-02	.3475-02	2.178	21.07	547.4
56	2.0000	.15000	289.00	.1220	.1480	.1370	.1737-02	.2110-02	.1954-02	1.203	8.980	532.3
56	2.0000	.20000	290.00	.1040	.1260	.1170	.1480-02	.1797-02	.1675-02	1.025	8.840	531.6
56	2.0000	.25000	291.00	.9500-01	.1150	.1080	.1350-02	.1640-02	.1538-02	.9370	7.690	531.0
56	2.0000	.30000	292.00	.7400-01	.9000-01	.0500-01	.1060-02	.1287-02	.1208-02	.7370	6.010	530.0
56	2.0000	.35000	293.00	.9400-01	.1150	.1070	.1343-02	.1635-02	.1532-02	.9210	7.890	538.6
56	2.0000	.40000	294.00	.8800-01	.1070	.1000+00	.1249-02	.1521-02	.1425-02	.8560	6.930	539.3
56	2.0000	.45000	295.00	.8100-01	.9900-01	.9300-01	.1161-02	.1413-02	.1325-02	.7960	6.090	538.8
57	3.0000	.00000	367.00	.4410	.5390	.0000	.6322-02	.7731-02	.0000	4.245	35.81	552.2
56	3.0000	.80000-03	145.00	.3390	.4140	.0000	.4842-02	.5908-02	.0000	3.285	24.37	546.1
56	3.0000	.23000-02	146.00	.3440	.4200	.0000	.4906-02	.5989-02	.0000	3.324	24.16	547.1
56	3.0000	.43000-02	147.00	.2620	.3190	.0000	.3739-02	.4556-02	.0000	2.554	18.99	541.7

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
56	3.0000	.68000-02	148.00	.2190	.2660	.0000	.3119-02	.3796-02	.0000	2.144	15.46	537.4
56	3.0000	.95000-02	149.00	.1720	.2090	.0000	.2450-02	.2977-02	.0000	1.696	11.80	532.5
56	3.0000	.12200-01	150.00	.1610	.1950	.0000	.2290-02	.2784-02	.0000	1.583	11.11	533.6
56	3.0000	.21800-01	151.00	.1010	.1220	.0000	.1437-02	.1744-02	.0000	.9990	7.160	529.5
56	3.0000	.25100-01	152.00	.1060	.1290	.0000	.1519-02	.1844-02	.0000	1.056	7.840	529.7
56	3.0000	.28600-01	153.00	.9400-01	.1140	.0000	.1339-02	.1626-02	.0000	.9320	7.690	528.8
56	3.0000	.35400-01	155.00	.1000+00	.1220	.0000	.1431-02	.1737-02	.0000	.9960	7.990	528.6
56	3.0000	.38700-01	156.00	.8200-01	.1000+00	.0000	.1175-02	.1426-02	.0000	.8190	6.640	528.2
56	3.0000	.42000-01	157.00	.8200-01	.9900-01	.0000	.1166-02	.1415-02	.0000	.8120	6.660	528.3
56	3.0000	.46200-01	158.00	.8100-01	.9800-01	.0000	.1149-02	.1394-02	.0000	.8000	6.560	528.1
56	3.0000	.50300-01	159.00	.7600-01	.9200-01	.0000	.1078-02	.1308-02	.0000	.7510	6.740	528.5
57	4.0000	.50000-01	297.00	.1020	.1230	.0000	.1458-02	.1767-02	.0000	1.022	8.590	522.7
57	4.0000	.75000-01	298.00	.7400-01	.9000-01	.0000	.1059-02	.1284-02	.0000	.7400	6.170	524.8
57	4.0000	.10000+00	299.00	.6400-01	.7700-01	.0000	.9117-03	.1104-02	.0000	.6390	5.180	522.3
57	4.0000	.12500	300.00	.4900-01	.5900-01	.0000	.7022-03	.8502-03	.0000	.4940	4.420	520.5
57	4.0000	.15000	301.00	.5100-01	.6200-01	.0000	.7363-03	.8914-03	.0000	.5180	4.170	520.4
57	4.0000	.20000	303.00	.4600-01	.5600-01	.0000	.6648-03	.8040-03	.0000	.4700	3.790	516.7
57	4.0000	.22500	304.00	.2400-01	.2900-01	.0000	.3433-03	.4152-03	.0000	.2430	2.670	516.8
57	4.0000	.25000	305.00	.1500-01	.1800-01	.0000	.2175-03	.2628-03	.0000	.1540	1.230	513.9
57	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.1613-04	.1949-04	.0000	.1100-01	.1100	514.7
57	4.0000	.37500	308.00	.1000-02	.2000-02	.0000	.2110-04	.2552-04	.0000	.1500-01	.1200	516.8
57	5.0000	.20000	311.00	.2500-01	.3100-01	.0000	.3648-03	.4408-03	.0000	.2590	2.550	513.9
57	5.0000	.22500	312.00	.2200-01	.2700-01	.0000	.3218-03	.3831-03	.0000	.2280	2.060	515.3
57	5.0000	.25000	313.00	.1900-01	.2300-01	.0000	.2765-03	.3340-03	.0000	.1960	1.500	513.4
57	5.0000	.27500	314.00	.2300-01	.2800-01	.0000	.3326-03	.4020-03	.0000	.2360	1.910	514.8
57	5.0000	.30000	315.00	.2700-01	.3200-01	.0000	.3817-03	.4615-03	.0000	.2700	1.980	516.2
57	5.0000	.32500	316.00	.1400-01	.1700-01	.0000	.2010-03	.2429-03	.0000	.1420	1.150	514.9
57	5.0000	.35000	317.00	.4000-02	.5000-02	.0000	.5712-04	.6903-04	.0000	.4000-01	.2900	514.8
57	5.0000	.37500	318.00	.5000-02	.6000-02	.0000	.7453-04	.9009-04	.0000	.5300-01	.4000	515.0
57	5.0000	.40000	319.00	.3000-02	.4000-02	.0000	.4984-04	.6024-04	.0000	.3500-01	.2900	515.1
57	5.0000	.47500	322.00	.2000-02	.3000-02	.0000	.3105-04	.3750-04	.0000	.2200-01	.1900	512.6
57	6.0000	.20000	323.00	.2500-01	.3000-01	.0000	.3519-03	.4255-03	.0000	.2490	2.170	516.3
57	6.0000	.22500	324.00	.2100-01	.2500-01	.0000	.2940-03	.3556-03	.0000	.2080	1.750	517.4
57	6.0000	.27500	326.00	.1400-01	.1700-01	.0000	.2072-03	.2504-03	.0000	.1470	1.270	515.0
57	6.0000	.30000	327.00	.2000-01	.2500-01	.0000	.2911-03	.3519-03	.0000	.2060	1.630	515.5
57	6.0000	.32500	328.00	.3500-01	.4200-01	.0000	.5001-03	.6051-03	.0000	.3530	3.200	518.7
57	6.0000	.35000	329.00	.2300-01	.2700-01	.0000	.3259-03	.3942-03	.0000	.2300	1.700	516.7
57	6.0000	.37500	330.00	.1600-01	.2000-01	.0000	.2314-03	.2798-03	.0000	.1640	1.310	516.7
57	6.0000	.40000	331.00	.9000-02	.1100-01	.0000	.1328-03	.1605-03	.0000	.9400-01	.7900	516.2
57	6.0000	.42500	332.00	.9000-02	.1100-01	.0000	.1308-03	.1580-03	.0000	.9300-01	.7600	514.9
57	6.0000	.45000	333.00	.5000-02	.6000-02	.0000	.7368-04	.8901-04	.0000	.5200-01	.4300	513.4
57	7.0000	.22500	334.00	.2600-01	.3100-01	.0000	.3695-03	.4468-03	.0000	.2610	2.320	516.4
57	7.0000	.25000	335.00	.1700-01	.2000-01	.0000	.2398-03	.2900-03	.0000	.1700	1.330	516.7

OH103A.AEOC V41B-V2, ORB FUS (LONG RADIANS) (R4HA07)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
57	7.0000	.27500	336.00	.1500-01	.1900-01	.0000	.2205-03	.2666-03	.0000	.1560	1.350	515.7
57	7.0000	.30000	337.00	.1100-01	.1300-01	.0000	.1572-03	.1900-03	.0000	.1110	.8200	515.2
57	7.0000	.32500	338.00	.2000-01	.2500-01	.0000	.2927-03	.3539-03	.0000	.2070	1.740	516.1
57	7.0000	.35000	339.00	.3000-01	.3600-01	.0000	.4283-03	.5178-03	.0000	.3030	2.270	516.3
57	7.0000	.40000	341.00	.2400-01	.2900-01	.0000	.3402-03	.4115-03	.0000	.2400	1.940	517.4
57	7.0000	.45000	343.00	.2100-01	.2500-01	.0000	.2980-03	.3604-03	.0000	.2110	1.730	516.3
57	8.0000	.50000-01	351.00	.9000-01	.1090	.0000	.1289-02	.1561-02	.0000	.9040	7.520	522.1
57	8.0000	.75000-01	352.00	.4700-01	.5700-01	.0000	.6786-03	.8202-03	.0000	.4810	4.040	515.0
57	8.0000	.12500	354.00	.4100-01	.4900-01	.0000	.5868-03	.7096-03	.0000	.4150	3.500	516.5
57	8.0000	.15000	355.00	.2900-01	.3500-01	.0000	.4104-03	.4963-03	.0000	.2900	2.400	516.7
57	8.0000	.17500	356.00	.3200-01	.3900-01	.0000	.4580-03	.5542-03	.0000	.3230	2.340	518.7
57	8.0000	.20000	357.00	.3100-01	.3700-01	.0000	.4416-03	.5345-03	.0000	.3110	2.680	519.1
58	9.0000	.61900-01	161.00	.8000-02	.1000 01	.0000	.1212-03	.1466-03	.0000	.8500-01	.7300	516.6
58	9.0000	.70900-01	162.00	.8000-02	.1000-01	.0000	.1167-03	.1412-03	.0000	.8200-01	.8700	517.1
58	9.0000	.80700-01	163.00	.9000-02	.1100-01	.0000	.1290-03	.1561-03	.0000	.9100-01	.7500	516.1
58	9.0000	.94300-01	164.00	.1300-01	.1500-01	.0000	.1817-03	.2198-03	.0000	.1280	.9900	516.3
58	9.0000	.97800-01	165.00	.1000-01	.1300-01	.0000	.1494-03	.1808-03	.0000	.1050	.8400	516.5
58	9.0000	.10130	166.00	.1000-01	.1200-01	.0000	.1400-03	.1694-03	.0000	.9900-01	.7800	516.2
58	10.000	.61900 01	167.00	.7000-02	.8000-02	.0000	.1013-03	.1225-03	.0000	.7100-01	.5300	515.5
58	10.000	.70900-01	168.00	.7000-02	.8000-02	.0000	.9932-04	.1201-03	.0000	.7000-01	.6700	516.3
58	10.000	.80700-01	169.00	.6000-02	.7000-02	.0000	.8748-04	1058-03	.0000	.6200-01	.5100	515.3
58	10.000	.94300-01	170.00	.1000-01	.1200-01	.0000	.1451-03	.1756-03	.0000	.1020	.8200	516.7
58	10.000	.97800-01	171.00	.1000-01	.1200-01	.0000	.1484-03	.1795-03	.0000	.1040	.8700	516.6
58	10.000	.10130	172.00	.9000-02	.1100-01	.0000	.1357-03	.1642-03	.0000	.9600-01	.7400	516.4
58	11.000	.80700-01	173.00	.2000-02	.3000-02	.0000	.3026-04	.3660-04	.0000	.2100-01	.1600	515.4
58	11.000	.94300-01	174.00	.2000-02	.3000-02	.0000	.3376-04	.4083-04	.0000	.2400-01	.2100	515.3
58	11.000	.97800-01	175.00	.4000-02	.5000-02	.0000	.5382-04	.6508-04	.0000	.3800-01	.2700	515.2
58	11.000	.10130	176.00	.4000-02	.5000-02	.0000	.6270-04	.7583-04	.0000	.4400-01	.3300	515.4

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
11	7.970	37.57	337.3	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01
12	7.970	37.56	336.7	1280.	93.40	.3530-01	1.571	3775.	.1021-02	.7514-07	1.600	.2039-01
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
11	.2125-01
12	.2129-01
13	.2125-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TH DEG. R
12	1.0000	.00000	367.00	.4440	.5440	.0000	.9060-02	.1108-01	.0000	6.351	52.87	578.7
12	1.0000	.80000-03	368.00	.3020	.3670	.0000	.6164-02	.7488-02	.0000	4.458	34.76	556.4
12	1.0000	.19000-02	369.00	.1520	.1840	.0000	.3091-02	.3742-02	.0000	2.274	19.33	544.1
12	1.0000	.37000-02	370.00	.1010	.1210	.0000	.2051-02	.2477-02	.0000	1.526	12.51	535.4
12	1.0000	.87000-02	372.00	.4900-01	.6000-01	.0000	.1006-02	.1214-02	.0000	.7550	6.320	529.8
12	1.0000	.11800-01	373.00	.3600-01	.4300-01	.0000	.7298-03	.8792-03	.0000	.5490	4.210	526.9
12	1.0000	.15100-01	374.00	.2700-01	.3300-01	.0000	.5605-03	.6753-03	.0000	.4220	3.240	525.6
12	1.0000	.18200-01	375.00	.2300-01	.2800-01	.0000	.4757-03	.5729-03	.0000	.3590	2.640	525.1
12	1.0000	.21500-01	376.00	.1600-01	.1900-01	.0000	.3214-03	.3870-03	.0000	.2430	1.850	524.5
12	1.0000	.24600-01	377.00	.1700-01	.2100-01	.0000	.3554-03	.4279-03	.0000	.2680	2.100	524.3
12	1.0000	.27800-01	378.00	.1200-01	.1500-01	.0000	.2499-03	.3009-03	.0000	.1890	1.630	523.8
12	1.0000	.60900-01	379.00	.1300-01	.1600-01	.0000	.2660-03	.3201-03	.0000	.2010	1.650	522.4
12	1.0000	.64600-01	380.00	.9000-02	.1100-01	.0000	.1856-03	.2233-03	.0000	.1410	1.380	521.0
12	1.0000	.68400-01	381.00	.1100-01	.1300-01	.0000	.2161-03	.2600-03	.0000	.1640	1.270	521.0
12	1.0000	.72100-01	382.00	.1000-01	.1200-01	.0000	.2046-03	.2461-03	.0000	.1550	1.190	520.7
12	1.0000	.79100-01	384.00	.9000-02	.1100-01	.0000	.1919-03	.2308-03	.0000	.1460	1.050	520.4
12	1.0000	.94300-01	385.00	.1300-01	.1500-01	.0000	.2558-03	.3077-03	.0000	.1940	1.520	520.7
12	1.0000	.97800-01	386.00	.1300-01	.1600-01	.0000	.2633-03	.3167-03	.0000	.2000	1.700	520.4

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA07)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
12	1.0000	.10190	387.00	.1400-01	.1700-01	.0000	.2873-03	.3456-03	.0000	.2180	1.790	521.1
12	1.0000	.11600	388.00	.2000-01	.2400-01	.0000	.4125-03	.4964-03	.0000	.3120	3.300	522.6
12	1.0000	.11950	389.00	.2700-01	.3300-01	.0000	.5570-03	.6701-03	.0000	.4220	2.930	521.6
12	1.0000	.12680	391.00	.2800-01	.3400-01	.0000	.5700-03	.6857-03	.0000	.4320	2.730	521.1
12	1.0000	.13050	392.00	.3100-01	.3700-01	.0000	.6336-03	.7622-03	.0000	.4810	2.820	521.2
12	1.0000	.13380	393.00	.3200-01	.3900-01	.0000	.6574-03	.7912-03	.0000	.4980	2.960	522.7
12	1.0000	.13760	394.00	.3000-01	.3600-01	.0000	.6092-03	.7330-03	.0000	.4620	2.770	521.
12	1.0000	.14110	395.00	.2900-01	.3500-01	.0000	.5849-03	.7036-03	.0000	.4430	2.980	521.4
12	1.0000	.14480	396.00	.3100-01	.3700-01	.0000	.6244-03	.7512-03	.0000	.4730	3.210	521.8
12	1.0000	.14830	397.00	.2900-01	.3500-01	.0000	.5954-03	.7164-03	.0000	.4510	3.060	521.8
12	1.0000	.15190	398.00	.3100-01	.3700-01	.0000	.6316-03	.7599-03	.0000	.4790	3.420	521.7
12	1.0000	.15560	399.00	.4200-01	.5100-01	.0000	.8662-03	.1042-02	.0000	.6570	4.950	521.8
12	1.0000	.15820	400.00	.9400-01	.1130	.0000	.1917-02	.2311-02	.0000	1.436	10.67	530.2
12	1.0000	.16080	401.00	.9200-01	.1110	.0000	.1875-02	.2262-02	.0000	1.403	10.85	531.5
12	1.0000	.16350	402.00	.9400-01	.1130	.0000	.1914-02	.2311-02	.0000	1.428	11.47	533.5
12	1.0000	.16640	403.00	.8600-01	.1040	.0000	.1759-02	.2121-02	.0000	1.318	10.87	530.3
12	2.0000	.00000	367.00	.4440	.5440	.0000	.9060-02	.1108-01	.0000	6.351	52.87	578.7
11	2.0000	.10000-02	273.00	.5610	.6900	.5770	.1144-01	.1407-01	.1178-01	7.816	63.12	594.5
11	2.0000	.18000-02	274.00	.5750	.7070	.5840	.1173-01	.1443-01	.1191-01	8.007	63.93	595.1
11	2.0000	.41000-02	275.00	.5530	.6810	.5530	.1128-01	.1390-01	.1128-01	7.652	59.87	599.2
11	2.0000	.70000-02	276.00	.5440	.6690	.5470	.1109-01	.1365-01	.1116-01	7.570	58.71	595.3
11	2.0000	.10300-01	277.00	.5090	.6260	.5150	.1039-01	.1277-01	.1050-01	7.097	55.26	594.4
11	2.0000	.15100-01	278.00	.5400	.6640	.5500	.1101-01	.1355-01	.1122-01	7.527	57.79	594.3
11	2.0000	.19900-01	279.00	.3460	.4250	.3570	.7069-02	.8667-02	.7274-02	4.900	46.11	584.5
11	2.0000	.23200-01	280.00	.1100	.1340	.1140	.2252-02	.2725-02	.2324-02	1.656	17.58	542.4
11	2.0000	.26300-01	281.00	.3020	.3700	.3140	.6155-02	.7553-02	.6403-02	4.249	48.75	587.3
11	2.0000	.29900-01	282.00	.3110	.3810	.3250	.6349-02	.7776-02	.6632-02	4.419	42.01	581.6
11	2.0000	.33800-01	283.00	.2770	.3390	.2920	.5652-02	.6907-02	.5947-02	3.976	37.77	574.3
11	2.0000	.38100-01	284.00	.2600	.3170	.2750	.5302-02	.6472-02	.5614-02	3.747	35.81	570.9
11	2.0000	.41400-01	285.00	.2480	.3020	.2630	.5051-02	.6165-02	.5376-02	3.573	34.16	570.3
11	2.0000	.45200-01	286.00	.2440	.2970	.2610	.4976-02	.6068-02	.5332-02	3.532	32.40	567.7
11	2.0000	.50300-01	287.00	.2240	.2730	.2420	.4562-02	.5569-02	.4927-02	3.225	30.82	570.8
11	2.0000	.15000	289.00	.1200	.1460	.1350	.2454-02	.2970-02	.2753-02	1.804	13.41	542.5
11	2.0000	.20000	290.00	.1030	.1240	.1160	.2093-02	.2535-02	.2364-02	1.532	13.11	545.8
11	2.0000	.25000	291.00	.9200-01	.1110	.1050	.1877-02	.2273-02	.2134-02	1.374	11.21	545.3
11	2.0000	.30000	292.00	.7400-01	.9000-01	.8500-01	.1517-02	.1837-02	.1724-02	1.112	9.000	544.7
11	2.0000	.35000	293.00	.1020	.1240	.1170	.2084-02	.2538-02	.2378-02	1.487	12.56	564.1
11	2.0000	.40000	294.00	.1120	.1370	.1280	.2285-02	.2788-02	.2610-02	1.618	12.89	569.6
11	2.0000	.45000	295.00	.1420	.1740	.1630	.2899-02	.3544-02	.3316-02	2.036	15.29	575.5
12	3.0000	.00000	367.00	.4440	.5440	.0000	.9060-02	.1108-01	.0000	6.351	52.87	578.7
11	3.0000	.80000-03	145.00	.3460	.4220	.0000	.7058-02	.8600-02	.0000	5.032	35.98	564.7
11	3.0000	.23000-02	146.00	.3510	.4270	.0000	.7157-02	.8720-02	.0000	5.103	36.77	564.7
11	3.0000	.43000-02	147.00	.2650	.3220	.0000	.5402-02	.6569-02	.0000	3.888	28.67	558.0

OH103A.AEDC V418-V2. ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
11	3.0000	.68000-02	148.00	.2110	.2560	.0000	.4308-02	.5225-02	.0000	3.135	22.47	549.8
11	3.0000	.95000-02	149.00	.1780	.2160	.0000	.3642-02	.4408-02	.0000	2.676	18.53	542.7
11	3.0000	.12200-01	150.00	.1600	.1940	.0000	.3268-02	.3958-02	.0000	2.397	16.74	544.3
11	3.0000	.21800-01	151.00	.9300-01	.1120	.0000	.1890-02	.2284-02	.0000	1.399	9.990	537.5
11	3.0000	.25100-01	152.00	.1070	.1290	.0000	.2179-02	.2634-02	.0000	1.611	11.92	538.3
11	3.0000	.28600-01	153.00	.9800-01	.1180	.0000	.1995-02	.2412-02	.0000	1.474	12.11	538.8
11	3.0000	.35400-01	155.00	.9100-01	.1090	.0000	.1847-02	.2232-02	.0000	1.367	10.92	537.3
11	3.0000	.38700-01	156.00	.8290-01	.1000+00	.0000	.1692-02	.2044-02	.0000	1.255	10.13	536.0
11	3.0000	.42000-01	157.00	.8200-01	.9900-01	.0000	.1670-02	.2018-02	.0000	1.239	10.11	536.0
11	3.0000	.46200-01	158.00	.8000-01	.9700-01	.0000	.1638-02	.1979-02	.0000	1.215	9.920	535.8
11	3.0000	.50300-01	159.00	.7200-01	.8700-01	.0000	.1470-02	.1776-02	.0000	1.091	9.760	535.7
11	3.0000	.55500-01	160.00	.7500-01	.9100-01	.0000	.1537-02	.1857-02	.0000	1.142	10.87	535.1
12	4.0000	.25000-01	296.00	.1450	.1750	.0000	.2947-02	.3567-02	.0000	2.169	16.55	543.5
12	4.0000	.50000-01	297.00	.1060	.1280	.0000	.2163-02	.2614-02	.0000	1.603	13.37	538.2
12	4.0000	.75000-01	298.00	.7700-01	.9300-01	.0000	.1565-02	.1891-02	.0000	1.162	9.620	537.0
12	4.0000	.10000+00	299.00	.6500-01	.7800-01	.0000	.1319-02	.1593-02	.0000	.9830	7.920	534.5
12	4.0000	.12500	300.00	.5000-01	.6100-01	.0000	.1025-02	.1237-02	.0000	.7670	6.820	531.9
12	4.0000	.15000	301.00	.5200-01	.6300-01	.0000	.1064-02	.1283-02	.0000	.79E0	6.380	531.3
12	4.0000	.20000	303.00	.4800-01	.5800-01	.0000	.9777-03	.1178-02	.0000	.7340	5.890	528.7
12	4.0000	.22500	304.00	.2500-01	.3000-01	.0000	.5009-03	.6035-03	.0000	.3770	4.130	527.1
12	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.2799-03	.3369-03	.0000	.2120	1.690	523.0
12	4.0000	.32500	307.00	.2000-02	.2000-02	.0000	.3555-04	.4276-04	.0000	.2700-01	.2500	520.8
12	4.0000	.37500	308.00	.1000-02	.1000-02	.0000	.1089-04	.1311-04	.0000	.8000-02	.6000-01	522.6
12	5.0000	.20000	311.00	.2800-01	.3300-01	.0000	.5671-03	.6827-03	.0000	.4280	4.190	524.3
12	5.0000	.22500	312.00	.2200-01	.2600-01	.0000	.4456-03	.5363-03	.0000	.3370	3.040	522.5
12	5.0000	.25000	313.00	.1600-01	.1900-01	.0000	.3250-03	.3909-03	.0000	.2470	1.880	521.0
12	5.0000	.27500	314.00	.2100-01	.2600-01	.0000	.4377-03	.5266-03	.0000	.3320	2.680	521.8
12	5.0000	.30000	315.00	.3000-01	.3600-01	.0000	.6095-03	.7337-03	.0000	.4610	3.370	523.7
12	5.0000	.32500	316.00	.1500-01	.1900-01	.0000	.3138-03	.3776-03	.0000	.2380	1.920	522.3
12	5.0000	.35000	317.00	.6000-02	.7000-02	.0000	.1192-03	.1434-03	.0000	.9000-01	.6600	521.1
12	5.0000	.37500	318.00	.5000-02	.6000-02	.0000	.9694-04	.1166-03	.0000	.7400-01	.5500	520.6
12	5.0000	.40000	319.00	.3000-02	.3000-02	.0000	.5704-04	.6859-04	.0000	.4300-01	.3500	520.0
12	5.0000	.47500	322.00	.1000-02	.1000-02	.0000	.2049-04	.2463-04	.0000	.1600-01	.1400	517.9
12	6.0000	.20000	323.00	.2500-01	.3000-01	.0000	.5066-03	.6101-03	.0000	.3820	3.320	525.3
12	6.0000	.22500	324.00	.1600-01	.1900-01	.0000	.3188-03	.3838-03	.0000	.2410	2.020	523.9
12	6.0000	.27500	326.00	.1300-01	.1600-01	.0000	.2638-03	.3174-03	.0000	.2000	1.730	521.8
12	6.0000	.30000	327.00	.2100-01	.2500-01	.0000	.4279-03	.5149-03	.0000	.3240	2.550	522.1
12	6.0000	.32500	328.00	.3500-01	.4200-01	.0000	.7060-03	.8502-03	.0000	.5320	4.810	525.5
12	6.0000	.35000	329.00	.2800-01	.3400-01	.0000	.5774-03	.6951-03	.0000	.4360	3.210	523.8
12	6.0000	.37500	330.00	.2200-01	.2600-01	.0000	.4400-03	.5296-03	.0000	.3330	2.650	523.7
12	6.0000	.40000	331.00	.1300-01	.1600-01	.0000	.2664-03	.3206-03	.0000	.2020	1.690	522.6
12	6.0000	.42500	332.00	.1300-01	.1600-01	.0000	.2636-03	.3171-03	.0000	.2000	1.630	521.3
12	6.0000	.45000	333.00	.1100-01	.1300-01	.0000	.2264-03	.2722-03	.0000	.1720	1.420	519.9

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA07)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
12	7.0000	.22500	334.00	.2300-01	.2800-01	.0000	.4748-03	.5715-03	.0000	.3590	3.170	523.2
12	7.0000	.25000	335.00	.1900-01	.2300-01	.0000	.3903-03	.4695-03	.0000	.2960	2.310	521.5
12	7.0000	.27500	336.00	.1400-01	.1700-01	.0000	.2950-03	.3548-03	.0000	.2240	1.930	520.6
12	7.0000	.30000	337.00	.1000-01	.1200-01	.0000	.1976-03	.2377-03	.0000	.1500	1.100	520.5
12	7.0000	.32500	338.00	.1900-01	.2300-01	.0000	.3966-03	.4773-03	.0000	.3000	2.520	522.2
12	7.0000	.35000	339.00	.2400-01	.2800-01	.0000	.4793-03	.5769-03	.0000	.3630	2.700	523.0
12	7.0000	.40000	341.00	.2900-01	.3500-01	.0000	.5917-03	.7124-03	.0000	.4470	3.610	524.1
12	7.0000	.45000	343.00	.2900-01	.3500-01	.0000	.5963-03	.7180-03	.0000	.4500	3.670	524.7
12	8.0000	.50000-01	351.00	.9700-01	.1180	.0000	.1984-02	.2398-02	.0000	1.473	12.15	537.4
12	8.0000	.75000-01	352.00	.4900-01	.6000-01	.0000	.1008-02	.1216-02	.0000	.7560	6.310	529.4
12	8.0000	.12500	354.00	.3800-01	.4500-01	.0000	.7693-03	.9270-03	.0000	.5780	4.850	527.7
12	8.0000	.15000	355.00	.3300-01	.4000-01	.0000	.6753-03	.8136-03	.0000	.5080	4.180	527.1
12	8.0000	.17500	356.00	.3600-01	.4400-01	.0000	.7404-03	.8921-03	.0000	.5570	4.020	527.3
12	8.0000	.20000	357.00	.2600-01	.3200-01	.0000	.5389-03	.6491-03	.0000	.4060	3.480	526.5
13	9.0000	.61900-01	161.00	.1000-01	.1200-01	.0000	.2000-03	.2408-03	.0000	.1510	1.280	523.7
13	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.2035-03	.2451-03	.0000	.1540	1.630	524.3
13	9.0000	.80700-01	163.00	.1100-01	.1300-01	.0000	.2281-03	.2746-03	.0000	.1720	1.410	523.0
13	9.0000	.94300-01	164.00	.1800-01	.2200-01	.0000	.3655-03	.4398-03	.0000	.2760	2.130	522.5
13	9.0000	.97800-01	165.00	.1300-01	.1600-01	.0000	.2698-03	.3248-03	.0000	.2040	1.630	522.8
13	9.0000	.10130	166.00	.1300-01	.1500-01	.0000	.2608-03	.3138-03	.0000	.1970	1.550	522.4
13	10.000	.61900-01	167.00	.8000-02	.1000-01	.0000	.1704-03	.2050-03	.0000	.1290	.9600	522.2
13	10.000	.70900-01	168.00	.1000-01	.1200-01	.0000	.1979-03	.2382-03	.0000	.1500	1.430	522.7
13	10.000	.80700-01	169.00	.9000-02	.1100-01	.0000	.1849-03	.2225-03	.0000	.1400	1.160	521.8
13	10.000	.94300-01	170.00	.1800-01	.2100-01	.0000	.3617-03	.4353-03	.0000	.2730	2.200	523.2
13	10.000	.97800-01	171.00	.1700-01	.2000-01	.0000	.3400-03	.4092-03	.0000	.2570	2.150	522.4
13	10.000	.10130	172.00	.1300-01	.1600-01	.0000	.2728-03	.3283-03	.0000	.2060	1.590	522.4
13	11.000	.80700-01	173.00	.3000-02	.4000-02	.0000	.5983-04	.7198-04	.0000	.4500-01	.3400	521.0
13	11.000	.94300-01	174.00	.4000-02	.5000-02	.0000	.7960-04	.9575-04	.0000	.6000-01	.5300	520.6
13	11.000	.97800-01	175.00	.6000-02	.8000-02	.0000	.1313-03	.1579-03	.0000	.1000+00	.7000	520.4
13	11.000	.10130	176.00	.7000-02	.8000-02	.0000	.1346-03	.1619-03	.0000	.1020	.7500	520.6

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
41	7.980	37.50	86.06	1179.	87.80	.9720-02	.4230	3620.	.2988-03	.7068-07	.4760	.1042-01
42	7.880	37.46	87.09	1181.	88.00	.9840-02	.4280	3623.	.3018-03	.7080-07	.4800	.1049-01
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
41	.3902-01
42	.3883-01
43	.3895-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
42	1.0000	.00000	367.00	.4400	.5410	.0000	.4614-02	.5673-02	.0000	2.917	24.66	548.3
42	1.0000	.80000-03	368.00	.3080	.3780	.0000	.3234-02	.3962-02	.0000	2.078	16.35	538.0
42	1.0000	.19000-02	369.00	.1500	.1830	.0000	.1569-02	.1917-02	.0000	1.021	8.740	530.2
42	1.0000	.37000-02	370.00	.9600-01	.1170	.0000	.1008-02	.1230-02	.0000	.6600	5.440	526.1
42	1.0000	.87000-02	372.00	.4600-01	.5700-01	.0000	.4876-03	.5943-03	.0000	.3210	2.690	522.9
42	1.0000	.11800-01	373.00	.3500-01	.4200-01	.0000	.3657-03	.4455-03	.0000	.2410	1.850	521.4
42	1.0000	.15100-01	374.00	.2600-01	.3200-01	.0000	.2760-03	.3361-03	.0000	.1820	1.400	520.8
42	1.0000	.18200-01	375.00	.2200-01	.2700-01	.0000	.2338-03	.2847-03	.0000	.1550	1.140	519.8
42	1.0000	.21500-01	376.00	.1900-01	.2200-01	.0000	.1891-03	.2302-03	.0000	.1250	.9600	519.5
42	1.0000	.24600-01	377.00	.1900-01	.2300-01	.0000	.1959-03	.2385-03	.0000	.1300	1.020	519.0
42	1.0000	.27800-01	378.00	.1400-01	.1700-01	.0000	.1508-03	.1835-03	.0000	.1000+00	.8600	519.1
42	1.0000	.60900-01	379.00	.1300-01	.1600-01	.0000	.1354-03	.1648-03	.0000	.9000-01	.7400	517.8
42	1.0000	.64600-01	380.00	.1000-01	.1200-01	.0000	.1048-03	.1275-03	.0000	.7000-01	.6800	516.9
42	1.0000	.68400-01	381.00	.1100-01	.1300-01	.0000	.1159-03	.1409-03	.0000	.7700-01	.6000	516.8
42	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.1103-03	.1342-03	.0000	.7300-01	.5600	516.8
42	1.0000	.79100-01	384.00	.1100-01	.1300-01	.0000	.1163-03	.1415-03	.0000	.7700-01	.5600	516.5
42	1.0000	.94300-01	385.00	.1100-01	.1300-01	.0000	.1143-03	.1390-03	.0000	.7600-01	.6000	516.4
42	1.0000	.97800-01	386.00	.1100-01	.1400-01	.0000	.1193-03	.1451-03	.0000	.7900-01	.6800	516.3

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA08)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
42	1.0000	.10190	387.00	.1200-01	.1500-01	.0000	.1280-03	.1557-03	.0000	.8500-01	.7000	516.9
42	1.0000	.11600	388.00	.1500-01	.1800-01	.0000	.1524-03	.1854-03	.0000	.1010	1.070	517.9
42	1.0000	.11950	389.00	.2100-01	.2600-01	.0000	.2206-03	.2684-03	.0000	.1460	1.020	517.5
42	1.0000	.12680	391.00	.1900-01	.2300-01	.0000	.1963-03	.2388-03	.0000	.1300	.8200	517.2
42	1.0000	.13050	392.00	.2400-01	.3000-01	.0000	.2549-03	.3100-03	.0000	.1690	.9900	517.1
42	1.0000	.13380	393.00	.2500-01	.3000-01	.0000	.2578-03	.3136-03	.0000	.1710	1.020	517.5
42	1.0000	.13760	394.00	.2900-01	.3600-01	.0000	.3069-03	.3733-03	.0000	.2040	1.220	516.8
42	1.0000	.14110	395.00	.2400-01	.2900-01	.0000	.2520-03	.3066-03	.0000	.1670	1.130	517.4
42	1.0000	.14480	396.00	.2300-01	.2800-01	.0000	.2453-03	.2984-03	.0000	.1630	1.110	516.9
42	1.0000	.14830	397.00	.2300-01	.2800-01	.0000	.2454-03	.2985-03	.0000	.1630	1.110	517.1
42	1.0000	.15190	398.00	.2700-01	.3300-01	.0000	.2828-03	.3440-03	.0000	.1880	1.340	517.3
42	1.0000	.15560	399.00	.2900-01	.3500-01	.0000	.3018-03	.3672-03	.0000	.2000	1.510	517.2
42	1.0000	.15820	400.00	.8100-01	.9800-01	.0000	.8483-03	.1033-02	.0000	.5600	4.180	520.8
42	1.0000	.16080	401.00	.8100-01	.9900-01	.0000	.8517-03	.1038-02	.0000	.5610	4.360	522.0
42	1.0000	.16350	402.00	.8200-01	.1000+00	.0000	.8615-03	.1050-02	.0000	.5660	4.570	523.1
42	1.0000	.16640	403.00	.8300-01	.1010	.0000	.8693-03	.1059-02	.0000	.5730	4.740	521.9
42	2.0000	.00000	367.00	.4400	.5410	.0000	.4614-02	.5673-02	.0000	2.917	24.66	548.3
41	2.0000	.10000-02	273.00	.5530	.6820	.5700	.5765-02	.7111-02	.5938-02	3.593	29.58	555.6
41	2.0000	.18000-02	274.00	.5700	.7030	.5790	.5942-02	.7328-02	.6032-02	3.701	30.13	555.8
41	2.0000	.41000-02	275.00	.5480	.6760	.5480	.5709-02	.7047-02	.5711-02	3.546	28.32	557.6
41	2.0000	.70000-02	276.00	.5410	.6680	.5450	.5644-02	.6961-02	.5681-02	3.516	27.81	555.7
41	2.0000	.10300-01	277.00	.5060	.6240	.5120	.5272-02	.6501-02	.5333-02	3.287	26.10	555.1
41	2.0000	.15100-01	278.00	.5440	.6710	.5550	.5676-02	.6995-02	.5784-02	3.548	27.80	553.6
41	2.0000	.19900-01	279.00	.3360	.4140	.3460	.3507-02	.4318-02	.3611-02	2.202	21.08	550.7
41	2.0000	.23200-01	280.00	.1160	.1420	.1200	.1214-02	.1484-02	.1255-02	.7870	8.410	530.2
41	2.0000	.26300-01	281.00	.3040	.3750	.3170	.3173-02	.3909-02	.3304-02	1.988	23.21	552.3
41	2.0000	.29900-01	282.00	.3140	.3870	.3290	.3275-02	.4029-02	.3424-02	2.062	19.92	549.0
41	2.0000	.33800-01	283.00	.2750	.3380	.2900	.2865-02	.3520-02	.3019-02	1.814	17.48	545.4
41	2.0000	.38100-01	284.00	.2540	.3120	.2690	.2648-02	.3252-02	.2809-02	1.678	16.25	544.9
41	2.0000	.41400-01	285.00	.2420	.2970	.2580	.2518-02	.3093-02	.2685-02	1.596	15.45	544.8
41	2.0000	.45200-01	286.00	.2390	.2930	.2570	.2493-02	.3059-02	.2677-02	1.585	14.73	542.6
41	2.0000	.50300-01	287.00	.2200	.2700	.2380	.2290-02	.2813-02	.2479-02	1.452	14.06	544.5
41	2.0000	.15000	289.00	.1170	.1440	.1330	.1225-02	.1499-02	.1384-02	.7880	5.880	535.1
41	2.0000	.20000	290.00	.1020	.1250	.1160	.1060-02	.1298-02	.1206-02	.6810	5.860	535.9
41	2.0000	.25000	291.00	.9100-01	.1120	.1050	.9515-03	.1166-02	.1090-02	.6090	4.980	538.7
41	2.0000	.30000	292.00	.7000-01	.8600-01	.8000-01	.7302-03	.8950-03	.8368-03	.4670	3.800	538.5
41	2.0000	.35000	293.00	.9000-01	.1100	.1030	.9355-03	.1149-02	.1074-02	.5930	5.060	545.1
41	2.0000	.40000	294.00	.8400-01	.1040	.9700-01	.8787-03	.1079-02	.1008-02	.5580	4.500	543.8
41	2.0000	.45000	295.00	.7400-01	.9100-01	.8500-01	.7712-03	.9460-03	.8842-03	.4920	3.760	540.8
42	3.0000	.00000	367.00	.4400	.5410	.0000	.4614-02	.5673-02	.0000	2.917	24.66	548.3
41	3.0000	.80000-03	145.00	.2910	.3570	.0000	.3033-02	.3720-02	.0000	1.936	14.40	540.4
41	3.0000	.23000-02	146.00	.3430	.4210	.0000	.3581-02	.4391-02	.0000	2.287	16.69	540.0
41	3.0000	.43000-02	147.00	.2630	.3220	.0000	.2739-02	.3355-02	.0000	1.759	13.11	536.5

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
41	3.0000	.68000-02	148.00	.2110	.2580	.0000	.2200-02	.2691-02	.0000	1.423	10.29	532.0
41	3.0000	.95000-02	149.00	.1750	.2140	.0000	.1826-02	.2231-02	.0000	1.187	8.270	528.9
41	3.0000	.12200-01	150.00	.1570	.1920	.0000	.1640-02	.2005-02	.0000	1.063	7.480	530.6
41	3.0000	.21800-01	151.00	.9900-01	.1200	.0000	.1027-02	.1254-02	.0000	.6700	4.810	526.6
41	3.0000	.25100-01	152.00	.1050	.1280	.0000	.1094-02	.1336-02	.0000	.7130	5.310	526.9
41	3.0000	.28600-01	153.00	.9500-01	.1160	.0000	.9866-03	.1204-02	.0000	.6430	5.310	527.1
41	3.0000	.35400-01	155.00	.7900-01	.9600-01	.0000	.8226-03	.1004-02	.0000	.5370	4.310	526.0
41	3.0000	.38700-01	156.00	.7800-01	.9500-01	.0000	.8116-03	.9904-03	.0000	.5300	4.300	525.7
41	3.0000	.42000-01	157.00	.7500-01	.9200-01	.0000	.7837-03	.9563-03	.0000	.5120	4.200	525.7
41	3.0000	.46200-01	158.00	.7500-01	.9100-01	.0000	.7809-03	.9528-03	.0000	.5100	4.190	525.6
41	3.0000	.50300-01	159.00	.7600-01	.9300-01	.0000	.7915-03	.9658-03	.0000	.5170	4.650	525.5
42	4.0000	.50000-01	297.00	.1000+00	.1220	.0000	.1048-02	.1280-02	.0000	.6830	5.730	528.7
42	4.0000	.75000-01	298.00	.7100-01	.8600-01	.0000	.7424-03	.9069-03	.0000	.4830	4.020	529.7
42	4.0000	.10000+00	299.00	.6100-01	.7500-01	.0000	.6440-03	.7864-03	.0000	.4200	3.390	528.6
42	4.0000	.12500	300.00	.4700-01	.5700-01	.0000	.4904-03	.5985-03	.0000	.3200	2.860	527.3
42	4.0000	.15000	301.00	.4900-01	.5900-01	.0000	.5112-03	.6240-03	.0000	.3340	2.680	527.6
42	4.0000	.20000	303.00	.4500-01	.5500-01	.0000	.4769-03	.5815-03	.0000	.3130	2.510	524.6
42	4.0000	.22500	304.00	.2400-01	.2900-01	.0000	.2489-03	.3035-03	.0000	.1630	1.790	524.2
42	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.1462-03	.1781-03	.0000	.9600-01	.7700	521.2
42	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.8521-05	.1037-04	.0000	.6000-02	.5000-01	519.4
42	4.0000	.37500	308.00	.2000-02	.2000-02	.0000	.2035-04	.2479-04	.0000	.1300-01	.1000+00	520.5
42	4.0000	.42500	309.00	.2000-02	.2000-02	.0000	.1928-04	.2346-04	.0000	.1300-01	.1000+00	518.3
42	5.0000	.20000	311.00	.2400-01	2900-01	.0000	.2529-03	.3078-03	.0000	.1670	1.640	519.0
42	5.0000	.22500	312.00	.2100-01	.2500-01	.0000	.2185-03	.2659-03	.0000	.1450	1.310	518.7
42	5.0000	.25000	313.00	.1700-01	.2000-01	.0000	.1750-03	.2129-03	.0000	.1160	.8800	518.0
42	5.0000	.27500	314.00	.2100-01	.2500-01	.0000	.2179-03	.2652-03	.0000	.1440	1.170	518.5
42	5.0000	.30000	315.00	.2400-01	.2900-01	.0000	.2484-03	.3023-03	.0000	.1650	1.210	517.7
42	5.0000	.32500	316.00	.1100-01	.1400-01	.0000	.1191-03	.1449-03	.0000	.7900-01	.6400	517.5
42	5.0000	.35000	317.00	.9000-02	.1100-01	.0000	.9669-04	.1176-03	.0000	.6400-01	.4700	517.4
42	5.0000	.37500	318.00	.5000-02	.6000-02	.0000	.5361-04	.6522-04	.0000	.3600-01	.2700	517.4
42	5.0000	.40000	319.00	.4000-02	.4000-02	.0000	.3873-04	.4711-04	.0000	.2600-01	.2100	516.9
42	5.0000	.47500	322.00	.2000-02	.2000-02	.0000	.1716-04	.2085-04	.0000	.1100-01	.1000+00	513.9
42	6.0000	.20000	323.00	.2200-01	.2700-01	.0000	.2316-03	.2820-03	.0000	.1530	1.330	520.0
42	6.0000	.22500	324.00	.2500-01	.3100-01	.0000	.2629-03	.3201-03	.0000	.1740	1.460	519.8
42	6.0000	.27500	326.00	.1400-01	.1700-01	.0000	.1454-03	.1770-03	.0000	.9600-01	.8300	518.0
42	6.0000	.30000	327.00	.2000-01	.2400-01	.0000	.2101-03	.2557-03	.0000	.1390	1.100	518.2
42	6.0000	.32500	328.00	.3000-01	.3700-01	.0000	.3184-03	.3876-03	.0000	.2100	1.910	519.8
42	6.0000	.35000	329.00	.2000-01	.2500-01	.0000	.2117-03	.2576-03	.0000	.1400	1.030	518.5
42	6.0000	.37500	330.00	.1200-01	.1400-01	.0000	.1213-03	.1476-03	.0000	.8000-01	.6400	518.1
42	6.0000	.40000	331.00	.8000-02	.9000-02	.0000	.8096-04	.9847-04	.0000	.5400-01	.4500	516.9
42	6.0000	.42500	332.00	.8000-02	.9000-02	.0000	.8065-04	.9805-04	.0000	.5400-01	.4400	515.4
42	7.0000	.22500	334.00	.2200-01	.2700-01	.0000	.2359-03	.2871-03	.0000	.1560	1.380	518.6
42	7.0000	.25000	335.00	.7000-02	.9000-02	.0000	.7829-04	.9528-04	.0000	.5200-01	.4000	518.4

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
42	7.0000	.27500	336.00	.1100-01	.1300-01	.0000	.1126-03	.1370-03	.0000	.7500-01	.6400	517.4
42	7.0000	.30000	337.00	.1200-01	.1500-01	.0000	.1257-03	.1529-03	.0000	.8300-01	.6100	516.8
42	7.0000	.32500	338.00	.2000-01	.2400-01	.0000	.2061-03	.2508-03	.0000	.1370	1.150	517.9
42	7.0000	.35000	339.00	.3000-01	.3700-01	.0000	.3174-03	.3863-03	.0000	.2100	1.570	518.7
42	7.0000	.40000	341.00	.1900-01	.2300-01	.0000	.1964-03	.2390-03	.0000	.1300	1.050	518.1
42	7.0000	.45000	343.00	.1400-01	.1700-01	.0000	.1427-03	.1735-03	.0000	.9500-01	.7800	516.4
42	8.0000	.50000-01	351.00	.5800-01	.7100-01	.0000	.6073-03	.7412-03	.0000	.3970	3.290	527.1
42	8.0000	.75000-01	352.00	.4500-01	.5500-01	.0000	.4740-03	.5776-03	.0000	.3120	2.610	522.6
42	8.0000	.12500	354.00	.3500-01	.4200-01	.0000	.3626-03	.4417-03	.0000	.2390	2.010	521.1
42	8.0000	.15000	355.00	.2900-01	.3500-01	.0000	.3018-03	.3677-03	.0000	.1990	1.640	521.4
42	8.0000	.17500	356.00	.3000-01	.3700-01	.0000	.3160-03	.3850-03	.0000	.2080	1.510	521.4
42	8.0000	.20000	357.00	.2900-01	.3500-01	.0000	.3035-03	.3696-03	.0000	.2000	1.720	521.1
43	9.0000	.61900-01	161.00	.8000-02	.1000-01	.0000	.8440-04	.1027-03	.0000	.5600-01	.4700	517.8
43	9.0000	.70900-01	162.00	.8000-02	.1000-01	.0000	.8280-04	.1008-03	.0000	.5500-01	.5800	517.8
43	9.0000	.80700-01	163.00	.9000-02	.1100-01	.0000	.9137-04	.1112-03	.0000	.6000-01	.5000	516.9
43	9.0000	.94300-01	164.00	.1100-01	.1400-01	.0000	.1199-03	.1459-03	.0000	.7900-01	.6100	516.8
43	9.0000	.97800-01	165.00	.9000-02	.1100-01	.0000	.9457-04	.1151-03	.0000	.6200-01	.5000	517.4
43	9.0000	.10130	166.00	.9000-02	.1100-01	.0000	.9056-04	.1102-03	.0000	.6000-01	.4700	517.0
43	10.000	.61900-01	167.00	.8000-02	.9000-02	.0000	.7993-04	.9725-04	.0000	.5300-01	.3900	516.3
43	10.000	.70900-01	168.00	.7000-02	.9000-02	.0000	.7581-04	.9223-04	.0000	.5000-01	.4800	516.4
43	10.000	.80700-01	169.00	.6000-02	.7000-02	.0000	.6091-04	.7410-04	.0000	.4000-01	.3300	516.0
43	10.000	.94300-01	170.00	.8000-02	.1000-01	.0000	.8431-04	.1026-03	.0000	.5600-01	.4500	516.8
43	10.000	.97800-01	171.00	.9000-02	.1000-01	.0000	.8890-04	.1082-03	.0000	.5900-01	.4900	516.8
43	10.000	.10130	172.00	.8000-02	.1000-01	.0000	.8421-04	.1025-03	.0000	.5600-01	.4300	516.7
43	11.000	.80700-01	173.00	.3000-02	.3000-02	.0000	.2938-04	.3575-04	.0000	.1900-01	.1500	516.2
43	11.000	.97800-01	175.00	.3000-02	.4000-02	.0000	.3327-04	.4047-04	.0000	.2200-01	.1600	515.6
43	11.000	.10130	176.00	.3000-02	.4000-02	.0000	.3388-04	.4121-04	.0000	.2200-01	.1700	515.8

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
32	7.880	40.08	86.18	1204.	89.70	.9740-02	.4230	3659.	.2930-03	.7218-07	.4620	.1047-01
33	7.880	39.99	86.20	1204.	89.70	.9740-02	.4230	3659.	.2930-03	.7218-07	.4620	.1047-01
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
32	.3950-01
33	.3949-01
34	.3943-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
33	1.0000	.00000	367.00	.4090	.5000	.0000	.4279-02	.5234-02	.0000	2.821	23.89	544.4
33	1.0000	.80000-03	368.00	.2780	.3390	.0000	.2913-02	.3551-02	.0000	1.951	15.38	534.0
33	1.0000	.19000-02	369.00	.1340	.1630	.0000	.1400-02	.1703-02	.0000	.9470	8.130	526.9
33	1.0000	.37000-02	370.00	.8600-01	.1040	.0000	.8955-03	.1088-02	.0000	.6090	5.020	523.4
33	1.0000	.87000-02	372.00	.4000-01	.4800-01	.0000	.4145-03	.5033-03	.0000	.2830	2.380	521.3
33	1.0000	.11800-01	373.00	.3000-01	.3600-01	.0000	.3139-03	.3810-03	.0000	.2150	1.650	520.2
33	1.0000	.15100-01	374.00	.2300-01	.2800-01	.0000	.2383-03	.2892-03	.0000	.1630	1.250	520.0
33	1.0000	.18200-01	375.00	.1900-01	.2400-01	.0000	.2040-03	.2476-03	.0000	.1390	1.030	520.0
33	1.0000	.21500-01	376.00	.1400-01	.1700-01	.0000	.1492-03	.1810-03	.0000	.1020	.7800	519.3
33	1.0000	.24600-01	377.00	.1500-01	.1800-01	.0000	.1558-03	.1890-03	.0000	.1070	.8400	519.1
33	1.0000	.27800-01	378.00	.1200-01	.1400-01	.0000	.1211-03	.1469-03	.0000	.8300-01	.7200	519.4
33	1.0000	.60900-01	379.00	.1100-01	.1300-01	.0000	.1125-03	.1365-03	.0000	.7700-01	.6300	518.7
33	1.0000	.64600-01	380.00	.8000-02	.9000-02	.0000	.8012-04	.9718-04	.0000	.5500-01	.5400	517.9
33	1.0000	.68400-01	381.00	.9000-02	.1100-01	.0000	.9719-04	.1179-03	.0000	.6700-01	.5200	517.9
33	1.0000	.72100-01	382.00	.8000-02	.1000-01	.0000	.8896-04	.1079-03	.0000	.6100-01	.4700	517.9
33	1.0000	.79100-01	384.00	.6000-02	.8000-02	.0000	.6610-04	.8017-04	.0000	.4500-01	.3300	517.7
33	1.0000	.94300-01	385.00	.1000-01	.1200-01	.0000	.1050-03	.1273-03	.0000	.7200-01	.5600	517.6
33	1.0000	.97800-01	386.00	.1100-01	.1300-01	.0000	.1110-03	.1347-03	.0000	.7600-01	.6500	517.6

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA09)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
33	1.0000	.10190	387.00	.1200-01	.1400-01	.0000	.1231-03	.1493-03	.0000	.8400-01	.6900	518.1
33	1.0000	.11600	388.00	.1600-01	.2000-01	.0000	.1711-03	.2076-03	.0000	.1170	1.240	518.7
33	1.0000	.11950	389.00	.2200-01	.2600-01	.0000	.2286-03	.2774-03	.0000	.1570	1.090	518.9
33	1.0000	.12680	391.00	.1900-01	.2400-01	.0000	.2037-03	.2472-03	.0000	.1400	.8800	518.6
33	1.0000	.13050	392.00	.2400-01	.2900-01	.0000	.2488-03	.3019-03	.0000	.1710	1.000	518.4
33	1.0000	.13380	393.00	.2500-01	.3100-01	.0000	.2644-03	.3208-03	.0000	.1810	1.080	519.6
33	1.0000	.13760	394.00	.2800-01	.3500-01	.0000	.2978-03	.3613-03	.0000	.2040	1.220	518.7
33	1.0000	.14110	395.00	.2300-01	.2800-01	.0000	.2423-03	.2939-03	.0000	.1660	1.120	518.7
33	1.0000	.14480	396.00	.2400-01	.2900-01	.0000	.2485-03	.3015-03	.0000	.1700	1.160	518.3
33	1.0000	.14830	397.00	.2500-01	.3000-01	.0000	.2578-03	.3127-03	.0000	.1770	1.200	518.4
33	1.0000	.15190	398.00	.2900-01	.3500-01	.0000	.3003-03	.3643-03	.0000	.2060	1.470	518.5
33	1.0000	.15560	399.00	.3100-01	.3700-01	.0000	.3211-03	.3895-03	.0000	.2200	1.660	518.3
33	1.0000	.15820	400.00	.8200-01	.1000+00	.0000	.8626-03	.1048-02	.0000	.5880	4.380	522.3
33	1.0000	.16080	401.00	.8900-01	.1080	.0000	.9344-03	.1135-02	.0000	.6350	4.930	523.7
33	1.0000	.16350	402.00	.8400-01	.1020	.0000	.8749-03	.1063-02	.0000	.5940	4.790	524.6
33	1.0000	.16640	403.00	.8400-01	.1020	.0000	.8778-03	.1067-02	.0000	.5970	4.940	523.3
33	2.0000	.00000	367.00	.4090	.5000	.0000	.4279-02	.5234-02	.0000	2.821	23.89	544.4
32	2.0000	.10000-02	273.00	.5190	.6380	.5380	.5436-02	.6675-02	.5634-02	3.526	29.04	555.1
32	2.0000	.18000-02	274.00	.5420	.6650	.5520	.5670-02	.6965-02	.5784-02	3.673	29.90	556.0
32	2.0000	.41000-02	275.00	.5400	.6640	.5410	.5657-02	.6955-02	.5664-02	3.650	29.14	558.5
32	2.0000	.70000-02	276.00	.5310	.6520	.5330	.5560-02	.6831-02	.5580-02	3.595	28.42	557.0
32	2.0000	.10300-01	277.00	.5060	.6220	.5100	.5297-02	.6508-02	.5337-02	3.426	27.19	556.8
32	2.0000	.15100-01	278.00	.5430	.6660	.5500	.5680-02	.6976-02	.5758-02	3.681	28.81	555.6
32	2.0000	.19900-01	279.00	.3400	.4170	.3480	.3557-02	.4364-02	.3639-02	2.315	22.14	552.8
32	2.0000	.23200-01	280.00	.1170	.1420	.1200	.1222-02	.1489-02	.1255-02	.8220	8.770	531.4
32	2.0000	.26300-01	281.00	.3080	.3780	.3180	.3220-02	.3953-02	.3326-02	2.089	24.36	554.9
32	2.0000	.29900-01	282.00	.3180	.3900	.3300	.3330-02	.4084-02	.3454-02	2.172	20.96	551.4
32	2.0000	.33800-01	283.00	.2820	.3460	.2950	.2954-02	.3617-02	.3085-02	1.938	18.66	547.5
32	2.0000	.38100-01	284.00	.2580	.3160	.2710	.2702-02	.3307-02	.2839-02	1.778	17.20	545.7
32	2.0000	.41400-01	285.00	.2490	.3050	.2630	.2608-02	.3192-02	.2754-02	1.716	16.61	545.7
32	2.0000	.45200-01	286.00	.2460	.3010	.2620	.2579-02	.3154-02	.2741-02	1.700	15.78	544.3
32	2.0000	.50300-01	287.00	.2270	.2770	.2430	.2372-02	.2904-02	.2540-02	1.560	15.09	546.1
32	2.0000	.15000	289.00	.1270	.1540	.1410	.1325-02	.1616-02	.1477-02	.8870	6.620	534.4
32	2.0000	.20000	290.00	.1120	.1370	.1260	.1175-02	.1433-02	.1318-02	.7850	6.750	535.6
32	2.0000	.25000	291.00	.1000+00	.1230	.1140	.1052-02	.1284-02	.1189-02	.7010	5.740	537.1
32	2.0000	.30000	292.00	.7700-01	.9500-01	.8800-01	.8112-03	.9895-03	.9162-03	.5420	4.410	535.8
32	2.0000	.35000	293.00	.9800-01	.1200	.1110	.1029-02	.1258-02	.1164-02	.6790	5.800	543.6
32	2.0000	.40000	294.00	.9100-01	.1120	.1030	.9569-03	.1170-02	.1082-02	.6320	5.110	543.1
32	2.0000	.45000	295.00	.7900-01	.9700-01	.9000-01	.8318-03	.1016-02	.9404-03	.5520	4.220	540.6
33	3.0000	.00000	367.00	.4090	.5000	.0000	.4279-02	.5234-02	.0000	2.821	23.89	544.4
32	3.0000	.80000-03	145.00	.2990	.3640	.0000	.3126-02	.3816-02	.0000	2.080	15.49	538.3
32	3.0000	.23000-02	146.00	.3160	.3860	.0000	.3305-02	.4037-02	.0000	2.196	16.02	539.4
32	3.0000	.43000-02	147.00	.2390	.2920	.0000	.2502-02	.3052-02	.0000	1.670	12.45	536.2

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA09)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
32	3.0000	.68000-02	148.00	.2030	.2480	.0000	.2131-02	.2596-02	.0000	1.431	10.35	531.9
32	3.0000	.95000-02	149.00	.1640	.2000	.0000	.1722-02	.2095-02	.0000	1.161	8.100	529.1
32	3.0000	.12200-01	150.00	.1440	.1760	.0000	.1510-02	.1839-02	.0000	1.017	7.150	530.5
32	3.0000	.21800-01	151.00	.9400-01	.1150	.0000	.9867-03	.1200-02	.0000	.6680	4.800	526.8
32	3.0000	.25100-01	152.00	.1000+00	.1220	.0000	.1049-02	.1277-02	.0000	.7100	5.200	527.1
32	3.0000	.28600-01	153.00	.8900-01	.1090	.0000	.9361-03	.1139-02	.0000	.6330	5.230	527.2
32	3.0000	.35400-01	155.00	.8800-01	.1070	.0000	.9200-03	.1119-02	.0000	.6230	5.000	526.2
32	3.0000	.38700-01	156.00	.7700-01	.9300-01	.0000	.8013-03	.9743-03	.0000	.5430	4.410	525.8
32	3.0000	.42000-01	157.00	.7800-01	.9500-01	.0000	.8159-03	.9921-03	.0000	.5530	4.540	525.9
32	3.0000	.46200-01	158.00	.7200-01	.8800-01	.0000	.7559-03	.9191-03	.0000	.5130	4.210	525.6
32	3.0000	.50300-01	159.00	.7800-01	.9400-01	.0000	.8124-03	.9879-03	.0000	.5510	4.950	525.8
33	4.0000	.50000-01	297.00	.9600-01	.1170	.0000	.1005-02	.1223-02	.0000	.6790	5.690	527.8
33	4.0000	.75000-01	298.00	.7200-01	.8700-01	.0000	.7510-03	.9139-03	.0000	.5070	4.220	528.5
33	4.0000	.10000+00	299.00	.5900-01	.7200-01	.0000	.6218-03	.7565-03	.0000	.4200	3.400	527.7
33	4.0000	.12500	300.00	.4600-01	.5600-01	.0000	.4796-03	.5833-03	.0000	.3250	2.900	526.3
33	4.0000	.15000	301.00	.4800-01	.5800-01	.0000	.5024-03	.6110-03	.0000	.3400	2.730	526.3
33	4.0000	.20000	303.00	.4300-01	.5200-01	.0000	.4510-03	.5481-03	.0000	.3060	2.460	524.1
33	4.0000	.22500	304.00	.2300-01	.2900-01	.0000	.2459-03	.2987-03	.0000	.1670	1.840	523.2
33	4.0000	.25000	305.00	.1100-01	.1300-01	.0000	.1115-03	.1354-03	.0000	.7600-01	.6100	520.3
33	4.0000	.32500	307.00	.2000-02	.3000-02	.0000	.2168-04	.2630-04	.0000	.1500-01	.1400	518.7
33	5.0000	.20000	311.00	.2600-01	.3200-01	.0000	.2748-03	.3335-03	.0000	.1880	1.840	519.5
33	5.0000	.22500	312.00	.2000-01	.2400-01	.0000	.2109-03	.2558-03	.0000	.1440	1.300	518.7
33	5.0000	.25000	313.00	.1600-01	.1900-01	.0000	.1639-03	.1988-03	.0000	.1120	.8600	518.1
33	5.0000	.27500	314.00	.2100-01	.2500-01	.0000	.2188-03	.2655-03	.0000	.1500	1.210	518.3
33	5.0000	.30000	315.00	.1500-01	.1900-01	.0000	.1611-03	.1954-03	.0000	.1100	.8100	518.2
33	5.0000	.32500	316.00	.8000-02	.1000-01	.0000	.8879-04	.1077-03	.0000	.6100-01	.4900	517.7
33	5.0000	.35000	317.00	.8000-02	.9000-02	.0000	.7973-04	.9668-04	.0000	.5500-01	.4000	517.3
33	5.0000	.37500	318.00	.3000-02	.4000-02	.0000	.3042-04	.3689-04	.0000	.2100-01	.1600	517.5
33	5.0000	.40000	319.00	.2000-02	.2000-02	.0000	.1685-04	.2044-04	.0000	.1200-01	.9000-01	517.0
33	6.0000	.20000	323.00	.2500-01	.3100-01	.0000	.2638-03	.3203-03	.0000	.1800	1.570	520.6
33	6.0000	.22500	324.00	.2400-01	.3000-01	.0000	.2558-03	.3105-03	.0000	.1750	1.470	520.5
33	6.0000	.27500	326.00	.1300-01	.1600-01	.0000	.1394-03	.1691-03	.0000	.9500-01	.8300	518.8
33	6.0000	.30000	327.00	.2200-01	.2600-01	.0000	.2279-03	.2765-03	.0000	.1560	1.230	518.9
33	6.0000	.32500	328.00	.2700-01	.3300-01	.0000	.2808-03	.3409-03	.0000	.1920	1.740	520.1
33	6.0000	.35000	329.00	.1400-01	.1700-01	.0000	.1468-03	.1782-03	.0000	.1010	.7400	518.7
33	6.0000	.37500	330.00	.1200-01	.1500-01	.0000	.1295-03	.1572-03	.0000	.8900-01	.7100	518.6
33	6.0000	.40000	331.00	.1000-01	.1200-01	.0000	.1029-03	.1248-03	.0000	.7100-01	.5900	517.5
33	6.0000	.42500	332.00	.5000-02	.6000-02	.0000	.5072-04	.6148-04	.0000	.3500-01	.2900	516.0
33	7.0000	.22500	334.00	.1600-01	.2000-01	.0000	.1714-03	.2080-03	.0000	.1170	1.040	520.0
33	7.0000	.25000	335.00	.4000-01	.4900-01	.0000	.4239-03	.5143-03	.0000	.2900	2.270	518.9
33	7.0000	.27500	336.00	.2000-01	.2400-01	.0000	.2054-03	.2491-03	.0000	.1410	1.210	518.3
33	7.0000	.30000	337.00	.1100-01	.1300-01	.0000	.1105-03	.1341-03	.0000	.7600-01	.5600	517.9
33	7.0000	.32500	338.00	.1800-01	.2200-01	.0000	.1870-03	.2269-03	.0000	.1280	1.070	518.8

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
33	7.0000	.35000	339.00	.2900-01	.3500-01	.0000	.3044-03	.3694-03	.0000	.2080	1.560	519.1
33	7.0000	.40000	341.00	.1200-01	.1500-01	.0000	.1264-03	.1533-03	.0000	.8700-01	.7000	518.8
33	7.0000	.45000	343.00	.8000-02	.9000-02	.0000	.8020-04	.9725-04	.0000	.5500-01	.4500	517.1
33	8.0000	.50000-01	351.00	.7800-01	.9500-01	.0000	.8210-03	.9987-03	.0000	.5550	4.600	527.3
33	8.0000	.75000-01	352.00	.4300-01	.5200-01	.0000	.4474-03	.5435-03	.0000	.3040	2.550	523.1
33	8.0000	.12500	354.00	.3000-01	.3600-01	.0000	.3145-03	.3821-03	.0000	.2140	1.800	522.6
33	8.0000	.15000	355.00	.2800-01	.3400-01	.0000	.2963-03	.3598-03	.0000	.2020	1.670	522.2
33	8.0000	.17500	356.00	.3000-01	.3600-01	.0000	.3137-03	.3811-03	.0000	.2140	1.550	522.2
33	8.0000	.20000	357.00	.2200-01	.2700-01	.0000	.2306-03	.2800-03	.0000	.1570	1.350	521.8
34	9.0000	.61900-01	161.00	.9000-02	.1100-01	.0000	.9442-04	.1146-03	.0000	.6400-01	.5500	518.5
34	9.0000	.70900-01	162.00	.9000-02	.1100-01	.0000	.9409-04	.1142-03	.0000	.6400-01	.6800	518.7
34	9.0000	.80700-01	163.00	.1000-01	.1200-01	.0000	.1008-03	.1223-03	.0000	.6900-01	.5600	518.0
34	9.0000	.94300-01	164.00	.1300-01	.1600-01	.0000	.1383-03	.1678-03	.0000	.9400-01	.7300	517.9
34	9.0000	.97800-01	165.00	.1100-01	.1400-01	.0000	.1169-03	.1419-03	.0000	.8000-01	.6400	518.4
34	9.0000	.10130	166.00	.1100-01	.1300-01	.0000	.1142-03	.1386-03	.0000	.7800-01	.6100	518.0
34	10.000	.61900-01	167.00	.7000-02	.9000-02	.0000	.7688-04	.9328-04	.0000	.5200-01	.3900	517.0
34	10.000	.70900-01	168.00	.7000-02	.9000-02	.0000	.7705-04	.9348-04	.0000	.5300-01	.5100	517.2
34	10.000	.80700-01	169.00	.7000-02	.8000-02	.0000	.7042-04	.8543-04	.0000	.4800-01	.4000	516.9
34	10.000	.94300-01	170.00	.9000-02	.1100-01	.0000	.9611-04	.1166-03	.0000	.6600-01	.5300	517.8
34	10.000	.97800-01	171.00	.1000-01	.1200-01	.0000	.9964-04	.1209-03	.0000	.6800-01	.5700	517.8
34	10.000	.10130	172.00	.8000-02	.1000-01	.0000	.8826-04	.1071-03	.0000	.6000-01	.4700	517.7
34	11.000	.80700-01	173.00	.3000-02	.4000-02	.0000	.3608-04	.4377-04	.0000	.2500-01	.1900	516.9
34	11.000	.94300-01	174.00	.3000-02	.3000-02	.0000	.2890-04	.3506-04	.0000	.2000-01	.1700	516.7
34	11.000	.97800-01	175.00	.5000-02	.6000-02	.0000	.5019-04	.6088-04	.0000	.3400-01	.2400	516.5
34	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.5060-04	.6138-04	.0000	.3500-01	.2600	516.6

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
59	7.930	39.98	163.7	1222.	90.00	.1770-01	.7810	3688.	.5324-03	.7241-07	.8430	.1426-01
60	7.930	39.99	166.2	1223.	90.10	.1800-01	.7930	3689.	.5401-03	.7247-07	.8550	.1437-01
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
59	.2935-01
60	.2914-01
61	.2932-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
60	1.0000	.00000	367.00	.4210	.5160	.0000	.6057-02	.7410-02	.0000	4.054	34.18	553.4
60	1.0000	.80000-03	368.00	.2710	.3300	.0000	.3895-02	.4744-02	.0000	2.660	20.92	539.6
60	1.0000	.19000-02	369.00	.1350	.1640	.0000	.1938-02	.2353-02	.0000	1.341	11.49	530.3
60	1.0000	.37000-02	370.00	.9100-01	.1100	.0000	.1306-02	.1583-02	.0000	.9110	7.510	525.1
60	1.0000	.87000-02	372.00	.4500-01	.5500-01	.0000	.6500-03	.7872-03	.0000	.4560	3.830	521.3
60	1.0000	.11800-01	373.00	.3400-01	.4100-01	.0000	.4850-03	.5870-03	.0000	.3410	2.630	519.0
60	1.0000	.15100-01	374.00	.2600-01	.3100-01	.0000	.3724-03	.4507-03	.0000	.2620	2.020	518.5
60	1.0000	.18200-01	375.00	.2200-01	.2700-01	.0000	.3157-03	.3820-03	.0000	.2220	1.640	518.0
60	1.0000	.21500-01	376.00	.1600-01	.1900-01	.0000	.2304-03	.2787-03	.0000	.1630	1.240	517.2
60	1.0000	.24600-01	377.00	.1700-01	.2100-01	.0000	.2474-03	.2992-03	.0000	.1750	1.370	516.6
60	1.0000	.27800-01	378.00	.1400-01	.1600-01	.0000	.1942-03	.2343-03	.0000	.1370	1.190	516.8
60	1.0000	.60900-01	379.00	.1500-01	.1800-01	.0000	.2102-03	.2541-03	.0000	.1490	1.220	515.8
60	1.0000	.64600-01	380.00	.1100-01	.1300-01	.0000	.1566-03	.1893-03	.0000	.1110	1.090	514.8
60	1.0000	.68400-01	381.00	.1300-01	.1600-01	.0000	.1896-03	.2292-03	.0000	.1340	1.050	514.8
60	1.0000	.72100-01	382.00	.1200-01	.1500-01	.0000	.1788-03	.2161-03	.0000	.1270	.9800	514.8
60	1.0000	.79100-01	384.00	.1300-01	.1600-01	.0000	.1908-03	.2307-03	.0000	.1350	.9800	514.8
60	1.0000	.94300-01	385.00	.1600-01	.2000-01	.0000	.2340-03	.2829-03	.0000	.1660	1.300	515.1
60	1.0000	.97800-01	386.00	.1700-01	.2000-01	.0000	.2382-03	.2880-03	.0000	.1690	1.440	515.0

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA09)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
60	1.0000	.10190	387.00	.1800-01	.2200-01	.0000	.2651-03	.3205-03	.0000	.1870	1.540	515.7
60	1.0000	.11600	388.00	.2400-01	.2900-01	.0000	.3394-03	.4105-03	.0000	.2400	2.540	516.7
60	1.0000	.11950	389.00	.3200-01	.3900-01	.0000	.4599-03	.5561-03	.0000	.3250	2.260	516.0
60	1.0000	.12680	391.00	.3200-01	.3900-01	.0000	.4602-03	.5564-03	.0000	.3250	2.060	515.6
60	1.0000	.13050	392.00	.3400-01	.4200-01	.0000	.4952-03	.5987-03	.0000	.3500	2.060	515.4
60	1.0000	.13380	393.00	.3500-01	.4200-01	.0000	.5015-03	.6064-03	.0000	.3540	2.110	515.8
60	1.0000	.13760	394.00	.3100-01	.3700-01	.0000	.4430-03	.5357-03	.0000	.3130	1.880	516.3
60	1.0000	.14110	395.00	.3100-01	.3800-01	.0000	.4512-03	.5455-03	.0000	.3190	2.150	515.5
60	1.0000	.14480	396.00	.3400-01	.4100-01	.0000	.4819-03	.5827-03	.0000	.3410	2.320	515.9
60	1.0000	.14830	397.00	.3300-01	.3900-01	.0000	.4684-03	.5664-03	.0000	.3310	2.250	515.9
60	1.0000	.15190	398.00	.3600-01	.4400-01	.0000	.5231-03	.6325-03	.0000	.3700	2.650	516.1
60	1.0000	.15560	399.00	.4000-01	.4900-01	.0000	.5772-03	.6980-03	.0000	.4080	3.080	516.0
60	1.0000	.15820	400.00	.9700-01	.1170	.0000	.1392-02	.1687-02	.0000	.9750	7.270	522.5
60	1.0000	.16080	401.00	.9400-01	.1140	.0000	.1351-02	.1637-02	.0000	.9433	7.320	524.2
60	1.0000	.16350	402.00	.9600-01	.1160	.0000	.1380-02	.1673-02	.0000	.9620	7.750	525.6
60	1.0000	.16640	403.00	.9500-01	.1150	.0000	.1359-02	.1647-02	.0000	.9500	7.860	523.7
60	2.0000	.00000	367.00	.4210	.5160	.0000	.6057-02	.7410-02	.0000	4.054	34.18	553.4
59	2.0000	.10000-02	273.00	.5330	.6550	.5520	.7603-02	.9344-02	.7879-02	4.985	40.83	566.0
59	2.0000	.18000-02	274.00	.5520	.6790	.5630	.7876-02	.9682-02	.8033-02	5.156	41.74	567.0
59	2.0000	.41000-02	275.00	.5500	.6770	.5500	.7841-02	.9653-02	.7851-02	5.104	40.50	570.7
59	2.0000	.70000-02	276.00	.5380	.6620	.5400	.7673-02	.9439-02	.7702-02	5.010	39.37	568.8
59	2.0000	.10300-01	277.00	.5090	.6260	.5130	.7260-02	.8931-02	.7317-02	4.742	37.40	568.5
59	2.0000	.15100-01	278.00	.5500	.6760	.5580	.7844-02	.9643-02	.7955-02	5.139	40.00	566.6
59	2.0000	.19900-01	279.00	.3490	.4290	.3570	.4976-02	.6113-02	.5092-02	3.268	31.06	564.9
59	2.0000	.23200-01	280.00	.1210	.1470	.1240	.1719-02	.2091-02	.1766-02	1.181	12.59	534.6
59	2.0000	.26300-01	281.00	.3110	.3820	.3210	.4430-02	.5447-02	.4579-02	2.898	33.59	567.4
59	2.0000	.29900-01	282.00	.3270	.4010	.3390	.4664-02	.5725-02	.4839-02	3.074	29.50	562.6
59	2.0000	.33800-01	283.00	.2900	.3550	.3030	.4133-02	.5064-02	.4319-02	2.747	26.32	557.0
59	2.0000	.38100-01	284.00	.2690	.3290	.2830	.3833-02	.4692-02	.4029-02	2.557	24.64	554.6
59	2.0000	.41400-01	285.00	.2560	.3140	.2710	.3656-02	.4475-02	.3862-02	2.440	23.51	554.4
59	2.0000	.45200-01	286.00	.2550	.3120	.2710	.3638-02	.4448-02	.3868-02	2.439	22.56	551.2
59	2.0000	.50300-01	287.00	.2360	.2880	.2520	.3359-02	.4111-02	.3598-02	2.244	21.63	553.8
59	2.0000	.15000	289.00	.1330	.1610	.1480	.1891-02	.2301-02	.2106-02	1.296	9.670	536.0
59	2.0000	.20000	290.00	.1130	.1370	.1260	.1607-02	.1955-02	.1801-02	1.103	9.500	535.1
59	2.0000	.25000	291.00	.1040	.1260	.1170	.1480-02	.1800-02	.1670-02	1.017	8.340	534.7
59	2.0000	.30000	292.00	.8000-01	.9700-01	.9000-01	.1137-02	.1384-02	.1283-02	.7800	6.350	535.5
59	2.0000	.35000	293.00	.1020	.1240	.1150	.1448-02	.1768-02	.1637-02	.9790	8.350	545.9
59	2.0000	.40000	294.00	.9400-01	.1150	.1070	.1345-02	.1644-02	.1522-02	.9050	7.290	548.6
59	2.0000	.45000	295.00	.8700-01	.1060	.9900-01	.1242-02	.1517-02	.1405-02	.8360	6.370	548.3
60	3.0000	.00000	367.00	.4210	.5160	.0000	.6057-02	.7410-02	.0000	4.054	34.18	553.4
59	3.0000	.80000-03	145.00	.3220	.3930	.0000	.4598-02	.5612-02	.0000	3.109	23.07	545.4
59	3.0000	.23000-02	146.00	.3260	.3990	.0000	.4656-02	.5684-02	.0000	3.145	22.87	546.2
59	3.0000	.43000-02	147.00	.2460	.3000	.0000	.3515-02	.4283-02	.0000	2.396	17.82	540.2

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
59	3.0000	.68000-02	148.00	.2100	.2560	.0000	.2999-02	.3649-02	.0000	2.057	14.85	535.7
59	3.0000	.95000-02	149.00	.1690	.2050	.0000	.2404-02	.2921-02	.0000	1.660	11.56	531.2
59	3.0000	.12200-01	150.00	.1590	.1930	.0000	.2262-02	.2749-02	.0000	1.560	10.96	531.9
59	3.0000	.21800-01	151.00	.9200-01	.1120	.0000	.1310-02	.1590-02	.0000	.9090	6.520	528.0
59	3.0000	.25100-01	152.00	.1040	.1270	.0000	.1488-02	.1806-02	.0000	1.031	7.670	528.5
59	3.0000	.28600-01	153.00	.9400-01	.1140	.0000	.1344-02	.1631-02	.0000	.9310	7.690	528.5
59	3.0000	.35400-01	155.00	.9700-01	.1180	.0000	.1387-02	.1683-02	.0000	.9630	7.730	527.4
59	3.0000	.38700-01	156.00	.8300-01	.1000+00	.0000	.1177-02	.1428-02	.0000	.8180	6.640	526.5
59	3.0000	.42000-01	157.00	.8000-01	.9700-01	.0000	.1142-02	.1385-02	.0000	.7930	6.510	526.6
59	3.0000	.46200-01	158.00	.8200-01	.1000+00	.0000	.1174-02	.1425-02	.0000	.8160	6.700	526.4
59	3.0000	.50300-01	159.00	.7300-01	.8900-01	.0000	.1044-02	.1267-02	.0000	.7260	6.530	526.7
60	4.0000	.50000-01	297.00	.1010	.1230	.0000	.1455-02	.1766-02	.0000	1.011	8.480	527.8
60	4.0000	.75000-01	298.00	.7700-01	.9300-01	.0000	.1102-02	.1338-02	.0000	.7640	6.350	529.7
60	4.0000	.10000+00	299.00	.6600-01	.8000-01	.0000	.9471-03	.1149-02	.0000	.6590	5.320	527.3
60	4.0000	.12500	300.00	.5100-01	.6200-01	.0000	.7346-03	.8909-03	.0000	.5120	4.570	525.5
60	4.0000	.15000	301.00	.5400-01	.6500-01	.0000	.7739-03	.9385-03	.0000	.5400	4.330	525.5
60	4.0000	.20000	303.00	.5000-01	.6000-01	.0000	.7151-03	.8660-03	.0000	.5020	4.040	521.1
60	4.0000	.22500	304.00	.2600-01	.3100-01	.0000	.3713-03	.4495-03	.0000	.2610	2.870	519.9
60	4.0000	.25000	305.00	.1500-01	.1800-01	.0000	.2099-03	.2539-03	.0000	.1480	1.180	516.8
60	4.0000	.32500	307.00	.2000-02	.2000-02	.0000	.2420-04	.2927-04	.0000	.1700-01	.1600	515.7
60	4.0000	.37500	308.00	.1000-02	.1000-02	.0000	.8011-05	.9691-05	.0000	.6000-02	.4000-01	517.6
60	5.0000	.20000	311.00	.2700-01	.3200-01	.0000	.3821-03	.4623-03	.0000	.2700	2.650	517.4
60	5.0000	.22500	312.00	.2400-01	.2900-01	.0000	.3426-03	.4144-03	.0000	.2420	2.190	516.6
60	5.0000	.25000	313.00	.1900-01	.2300-01	.0000	.2787-03	.3369-03	.0000	.1970	1.510	515.4
60	5.0000	.27500	314.00	.2700-01	.3300-01	.0000	.3925-03	.4746-03	.0000	.2770	2.250	516.0
60	5.0000	.30000	315.00	.2400-01	.2800-01	.0000	.3382-03	.4090-03	.0000	.2390	1.750	516.3
60	5.0000	.32500	316.00	.1400-01	.1600-01	.0000	.1956-03	.2365-03	.0000	.1380	1.120	515.3
60	5.0000	.35000	317.00	.1000-02	.1000-02	.0000	.1562-04	.1888-04	.0000	.1100-01	.8000-01	515.2
60	5.0000	.37500	318.00	.4000-02	.5000-02	.0000	.6323-04	.7644-04	.0000	.4500-01	.3300	515.2
60	5.0000	.40000	319.00	.2000-02	.3000-02	.0000	.3253-04	.3933-04	.0000	.2300-01	.1900	514.8
60	5.0000	.47500	322.00	.2000-02	.2000-02	.0000	.2699-04	.3260-04	.0000	.1900-01	.1700	512.1
60	6.0000	.20000	323.00	.2500-01	.3100-01	.0000	.3641-03	.4406-03	.0000	.2560	2.230	518.6
60	6.0000	.22500	324.00	.1700-01	.2000-01	.0000	.2428-03	.2938-03	.0000	.1710	1.440	518.4
60	6.0000	.27500	326.00	.1600-01	.2000-01	.0000	.2344-03	.2834-03	.0000	.1660	1.430	516.0
60	6.0000	.30000	327.00	.2600-01	.3200-01	.0000	.3757-03	.4543-03	.0000	.2650	2.100	516.3
60	6.0000	.32500	328.00	.3400-01	.4200-01	.0000	.4957-03	.5999-03	.0000	.3490	3.160	518.8
60	6.0000	.35000	329.00	.1800-01	.2200-01	.0000	.2622-03	.3171-03	.0000	.1850	1.370	516.7
60	6.0000	.37500	330.00	.1600-01	.2000-01	.0000	.2363-03	.2859-03	.0000	.1670	1.340	517.0
60	6.0000	.40000	331.00	.9000-02	.1000-01	.0000	.1235-03	.1493-03	.0000	.8700-01	.7300	515.5
60	6.0000	.42500	332.00	.6000-02	.7000-02	.0000	.8719-04	.1054-03	.0000	.6200-01	.5100	514.0
60	6.0000	.45000	333.00	.9000-02	.1100-01	.0000	.1326-03	.1601-03	.0000	.9400-01	.7800	512.7
60	7.0000	.22500	334.00	.2400-01	.3000-01	.0000	.3506-03	.4241-03	.0000	.2470	2.190	517.3
60	7.0000	.25000	335.00	.1900-01	.2300-01	.0000	.2764-03	.3342-03	.0000	.1950	1.530	515.9

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
60	7.0000	.27500	336.00	.1800-01	.2200-01	.0000	.2593-03	.3134-03	.0000	.1830	1.580	515.3
60	7.0000	.30000	337.00	.1400-01	.1700-01	.0000	.2012-03	.2432-03	.0000	.1420	1.050	515.0
60	7.0000	.32500	338.00	.2500-01	.3000-01	.0000	.3584-03	.4334-03	.0000	.2530	2.130	516.4
60	7.0000	.35000	339.00	.2900-01	.3600-01	.0000	.4218-03	.5103-03	.0000	.2970	2.220	517.5
60	7.0000	.40000	341.00	.2400-01	.3000-01	.0000	.3507-03	.4241-03	.0000	.2480	2.000	516.7
60	7.0000	.45000	343.00	.1500-01	.1800-01	.0000	.2140-03	.2587-03	.0000	.1510	1.240	515.4
60	8.0000	.50000-01	351.00	.9400-01	.1140	.0000	.1349-02	.1637-02	.0000	.9380	7.770	527.4
60	8.0000	.75000-01	352.00	.4900-01	.5900-01	.0000	.7013-03	.8493-03	.0000	.4920	4.120	521.3
60	8.0000	.12500	354.00	.4000-01	.4800-01	.0000	.5733-03	.6942-03	.0000	.4020	3.390	520.6
60	8.0000	.15000	355.00	.3400-01	.4100-01	.0000	.4838-03	.5858-03	.0000	.3400	2.810	520.2
60	8.0000	.17500	356.00	.4100-01	.5000-01	.0000	.5935-03	.7187-03	.0000	.4170	3.020	520.5
60	8.0000	.20000	357.00	.2800-01	.3400-01	.0000	.4026-03	.4875-03	.0000	.2830	2.430	520.1
61	9.0000	.61900-01	161.00	.8000-02	.1000-01	.0000	.1160-03	.1403-03	.0000	.8200-01	.7000	516.8
61	9.0000	.70900-01	162.00	.8000-02	.1000-01	.0000	.1194-03	.1444-03	.0000	.8400-01	.9000	517.1
61	9.0000	.80700-01	163.00	.1000-01	.1200-01	.0000	.1358-03	.1642-03	.0000	.9600-01	.7900	516.3
61	9.0000	.94300-01	164.00	.1500-01	.1800-01	.0000	.2083-03	.2519-03	.0000	.1470	1.140	516.0
61	9.0000	.97800-01	165.00	.1200-01	.1500-01	.0000	.1745-03	.2111-03	.0000	.1230	.9900	517.0
61	9.0000	.10130	166.00	.1100-01	.1400-01	.0000	.1641-03	.1983-03	.0000	.1160	.9100	516.7
61	10.000	.61900-01	167.00	.6000-02	.7000-02	.0000	.9721-04	.1054-03	.0000	.6200-01	.4600	515.1
61	10.000	.70900-01	168.00	.7000-02	.8000-02	.0000	.9342-04	.1130-03	.0000	.6600-01	.6400	515.6
61	10.000	.80700-01	169.00	.6000-02	.7000-02	.0000	.8381-04	.1013-03	.0000	.5900-01	.4900	514.9
61	10.000	.94300-01	170.00	.1000-01	.1300-01	.0000	.1487-03	.1798-03	.0000	.1050	.8500	516.4
61	10.000	.97800-01	171.00	.1000-01	.1300-01	.0000	.1496-03	.1809-03	.0000	.1060	.8800	516.3
61	10.000	.10130	172.00	.1000-01	.1200-01	.0000	.1398-03	.1691-03	.0000	.9900-01	.7600	516.1
61	11.000	.80700-01	173.00	.2000-02	.2000-02	.0000	.2333-04	.2820-04	.0000	.1700-01	.1200	514.7
61	11.000	.94300-01	174.00	.2000-02	.3000-02	.0000	.3054-04	.3692-04	.0000	.2200-01	.1900	514.6
61	11.000	.97800-01	175.00	.4000-02	.5000-02	.0000	.5346-04	.6462-04	.0000	.3800-01	.2700	514.5
61	11.000	.10130	176.00	.4000-02	.5000-02	.0000	.5771-04	.6976-04	.0000	.4100-01	.3000	514.7

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
14	7.970	40.00	337.3	1282.	93.50	.3540-01	1.574	3778.	.1022-02	.7526-07	1.590	.2041-01
15	7.970	40.00	337.6	1282.	93.50	.3540-01	1.576	3778.	.1023-02	.7526-07	1.600	.2042-01
16	7.970	40.00	337.7	1291.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
14	.2129-01
15	.2128-01
16	.2127-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
15	1.0000	.00000	367.00	.4180	.5100	.0000	.8540-02	.1042-01	.0000	6.062	50.64	571.8
15	1.0000	.80000-03	368.00	.2810	.3410	.0000	.5739-02	.6960-02	.0000	4.192	32.77	551.2
15	1.0000	.19000-02	369.00	.1360	.1650	.0000	.2785-02	.3363-02	.0000	2.075	17.71	536.4
15	1.0000	.37000-02	370.00	.8900-01	.1070	.0000	.1810-02	.2181-02	.0000	1.363	11.21	528.4
15	1.0000	.87000-02	372.00	.4300-01	.5200-01	.0000	.8774-03	.1056-02	.0000	.6650	5.580	524.1
15	1.0000	.11800-01	373.00	.3000-01	.3600-01	.0000	.6158-03	.7409-03	.0000	.4680	3.590	522.4
15	1.0000	.15100-01	374.00	.2300-01	.2800-01	.0000	.4779-03	.5749-03	.0000	.3630	2.790	522.1
15	1.0000	.18200-01	375.00	.1900-01	.2300-01	.0000	.3961-03	.4764-03	.0000	.3010	2.220	521.2
15	1.0000	.21500-01	376.00	.1300-01	.1600-01	.0000	.2723-03	.3275-03	.0000	.2070	1.580	520.9
15	1.0000	.24600-01	377.00	.1400-01	.1700-01	.0000	.2866-03	.3447-03	.0000	.2180	1.700	521.5
15	1.0000	.27800-01	378.00	.1000-01	.1200-01	.0000	.2021-03	.2430-03	.0000	.1540	1.330	521.2
15	1.0000	.60900-01	379.00	.1200-01	.1400-01	.0000	.2456-03	.2954-03	.0000	.1870	1.530	521.4
15	1.0000	.64600-01	380.00	.9000-02	.1100-01	.0000	.1828-03	.2198-03	.0000	.1390	1.360	520.3
15	1.0000	.68400-01	381.00	.1100-01	.1300-01	.0000	.2221-03	.2671-03	.0000	.1690	1.310	520.4
15	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.2200-03	.2645-03	.0000	.1670	1.290	520.3
15	1.0000	.79100-01	384.00	.1100-01	.1300-01	.0000	.2177-03	.2618-03	.0000	.1660	1.200	520.2
15	1.0000	.94300-01	385.00	.1600-01	.1900-01	.0000	.3181-03	.3825-03	.0000	.2420	1.890	520.9
15	1.0000	.97800-01	386.00	.1700-01	.2000-01	.0000	.3440-03	.4137-03	.0000	.2620	2.230	520.2

OH103A,AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA09)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF P=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
15	1.0000	.10190	387.00	.1900-01	.2200-01	.0000	.3773-03	.4537-03	.0000	.2870	2.350	520.9
15	1.0000	.11600	388.00	.2400-01	.2900-01	.0000	.4955-03	.5963-03	.0000	.3760	3.970	523.4
15	1.0000	.11950	389.00	.3200-01	.3800-01	.0000	.6514-03	.7836-03	.0000	.4950	3.430	522.3
15	1.0000	.12680	391.00	.2800-01	.3300-01	.0000	.5636-03	.6779-03	.0000	.4290	2.710	521.3
15	1.0000	.13050	392.00	.3200-01	.3900-01	.0000	.6629-03	.7973-03	.0000	.5040	2.960	521.3
15	1.0000	.13380	393.00	.3300-01	.4000-01	.0000	.6714-03	.8075-03	.0000	.5100	3.030	521.5
15	1.0000	.13760	394.00	.3000-01	.3600-01	.0000	.6169-03	.7420-03	.0000	.4690	2.810	521.6
15	1.0000	.14110	395.00	.2900-01	.3400-01	.0000	.5843-03	.7027-03	.0000	.4440	2.990	521.2
15	1.0000	.14480	396.00	.2900-01	.3500-01	.0000	.5857-03	.7046-03	.0000	.4450	3.020	521.8
15	1.0000	.14830	397.00	.2900-01	.3400-01	.0000	.5770-03	.6940-03	.0000	.4390	2.980	521.4
15	1.0000	.15190	398.00	.3100-01	.3800-01	.0000	.6403-03	.7701-03	.0000	.4870	3.480	521.4
15	1.0000	.15560	399.00	.4100-01	.5000-01	.0000	.8429-03	.1014-02	.0000	.6410	4.830	521.1
15	1.0000	.15820	400.00	.8800-01	.1060	.0000	.1801-02	.2170-02	.0000	1.355	10.07	529.0
15	1.0000	.16080	401.00	.8100-01	.9800-01	.0000	.1663-02	.2004-02	.0000	1.251	9.680	529.6
15	1.0000	.16350	402.00	.8500-01	.1030	.0000	.1739-02	.2097-02	.0000	1.304	10.48	531.4
15	1.0000	.16640	403.00	.8200-01	.9800-01	.0000	.1666-02	.2008-02	.0000	1.254	10.35	529.0
15	2.0000	.00000	367.00	.4180	.5100	.0000	.8540-02	.1042-01	.0000	6.062	50.64	571.8
14	2.0000	.10000-02	273.00	.5320	.6530	.5510	.1087-01	.1333-01	.1126-01	7.529	60.97	588.8
14	2.0000	.18000-02	274.00	.5490	.6740	.5600	.1120-01	.1375-01	.1142-01	7.741	61.95	590.5
14	2.0000	.41000-02	275.00	.5380	.6620	.5390	.1098-01	.1350-01	.1099-01	7.527	58.99	596.1
14	2.0000	.70000-02	276.00	.5350	.6570	.5370	.1091-01	.1341-01	.1095-01	7.512	58.32	593.3
14	2.0000	.10300-01	277.00	.5070	.6230	.5110	.1035-01	.1272-01	.1043-01	7.129	55.55	593.1
14	2.0000	.15100-01	278.00	.5450	.6700	.5530	.1113-01	.1368-01	.1129-01	7.656	58.79	594.0
14	2.0000	.19900-01	279.00	.3480	.4260	.3560	.7102-02	.8704-02	.7266-02	4.946	46.53	585.3
14	2.0000	.23000-01	280.00	.1100	.1330	.1130	.2247-02	.2719-02	.2306-02	1.658	17.59	543.7
14	2.0000	.26300-01	281.00	.3080	.3780	.3190	.6294-02	.7723-02	.6503-02	4.359	49.98	589.0
14	2.0000	.29900-01	282.00	.3210	.3930	.3330	.6556-02	.8030-02	.6800-02	4.575	43.44	583.8
14	2.0000	.33800-01	283.00	.2850	.3480	.2980	.5816-02	.7108-02	.6074-02	4.101	38.92	576.5
14	2.0000	.38100-01	284.00	.2640	.3220	.2770	.5386-02	.6577-02	.5659-02	3.814	36.40	573.6
14	2.0000	.41400-01	285.00	.2510	.3070	.2650	.5133-02	.6267-02	.5418-02	3.635	34.69	573.5
14	2.0000	.45200-01	286.00	.2490	.3030	.2640	.5075-02	.6188-02	.5391-02	3.615	33.14	569.3
14	2.0000	.50300-01	287.00	.2300	.2810	.2460	.4693-02	.5733-02	.5024-02	3.315	31.62	575.2
14	2.0000	.15000	289.00	.1260	.1520	.1400	.2563-02	.3110-02	.2851-02	1.869	13.82	552.6
14	2.0000	.20000	290.00	.1080	.1310	.1210	.2203-02	.2676-02	.2467-02	1.597	13.60	556.7
14	2.0000	.25000	291.00	.9700-01	.1180	.1090	.1977-02	.2404-02	.2230-02	1.428	11.56	559.7
14	2.0000	.30000	292.00	.7700-01	.9400-01	.8700-01	.1579-02	.1919-02	.1780-02	1.144	9.210	557.3
14	2.0000	.35000	293.00	.1090	.1330	.1240	.2229-02	.2725-02	.2522-02	1.569	13.17	577.7
14	2.0000	.40000	294.00	.1250	.1530	.1410	.2550-02	.3122-02	.2887-02	1.782	14.10	582.9
14	2.0000	.45000	295.00	.1650	.2030	.1870	.3375-02	.4139-02	.3825-02	2.343	17.49	587.4
15	3.0000	.00000	367.00	.4180	.5100	.0000	.8540-02	.1042-01	.0000	6.062	50.64	571.8
14	3.0000	.80000-03	145.00	.3070	.3730	.0000	.6261-02	.7612-02	.0000	4.521	33.31	559.5
14	3.0000	.23000-02	146.00	.3230	.3930	.0000	.6600-02	.8024-02	.0000	4.768	34.45	559.3
14	3.0000	.43000-02	147.00	.2440	.2970	.0000	.4989-02	.6054-02	.0000	3.634	26.86	553.2

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
14	3.0000	.68000-02	148.00	.1960	.2380	.0000	.4009-02	.4854-02	.0000	2.951	21.19	545.5
14	3.0000	.95000-02	149.00	.1650	.1990	.0000	.3359-02	.4060-02	.0000	2.494	17.30	539.2
14	3.0000	.12200-01	150.00	.1520	.1840	.0000	.3098-02	.3746-02	.0000	2.295	16.05	540.9
14	3.0000	.21800-01	151.00	.8900-01	.1070	.0000	.1807-02	.2181-02	.0000	1.349	9.640	535.1
14	3.0000	.25100-01	152.00	.1010	.1220	.0000	.2063-02	.2491-02	.0000	1.538	11.39	536.0
14	3.0000	.28600-01	153.00	.9000-01	.1090	.0000	.1844-02	.2227-02	.0000	1.374	11.29	536.6
14	3.0000	.35400-01	155.00	.8100-01	.9800-01	.0000	.1649-02	.1991-02	.0000	1.230	9.830	535.6
14	3.0000	.38700-01	156.00	.7700-01	.9300-01	.0000	.1581-02	.1909-02	.0000	1.181	9.550	534.6
14	3.0000	.42000-01	157.00	.7600-01	.9100-01	.0000	.1543-02	.1862-02	.0000	1.152	9.410	534.8
14	3.0000	.46200-01	158.00	.7300-01	.8800-01	.0000	.1486-02	.1794-02	.0000	1.110	9.070	534.7
14	3.0000	.50300-01	159.00	.6800-01	.8200-01	.0000	.1394-02	.1683-02	.0000	1.041	9.320	534.8
14	3.0000	.55500-01	160.00	.1600-01	.2000-01	.0000	.3316-03	.3999-03	.0000	.2490	2.370	531.5
15	4.0000	.25000-01	296.00	.1420	.1720	.0000	.2899-02	.3503-02	.0000	2.155	16.49	538.2
15	4.0000	.50000-01	297.00	.1030	.1240	.0000	.2105-02	.2542-02	.0000	1.570	13.10	535.9
15	4.0000	.75000-01	298.00	.7600-01	.9100-01	.0000	.1545-02	.1866-02	.0000	1.151	9.530	536.7
15	4.0000	.10000+00	299.00	.6400-01	.7700-01	.0000	.1298-02	.1567-02	.0000	.9680	7.790	535.6
15	4.0000	.12500	300.00	.5100-01	.6100-01	.0000	.1032-02	.1245-02	.0000	.7720	6.860	533.4
15	4.0000	.15000	301.00	.5200-01	.6300-01	.0000	.1068-02	.1288-02	.0000	.7990	6.390	533.3
15	4.0000	.20000	303.00	.4800-01	.5800-01	.0000	.9782-03	.1179-02	.0000	.7350	5.890	530.4
15	4.0000	.22500	304.00	.2400-01	.2900-01	.0000	.4873-03	.5873-03	.0000	.3670	4.020	528.7
15	4.0000	.25000	305.00	.1300-01	.1500-01	.0000	.2581-03	.3107-03	.0000	.1960	1.550	524.2
15	4.0000	.32500	307.00	.2000-02	.2000-02	.0000	.3678-04	.4425-04	.0000	.2800-01	.2600	522.0
15	5.0000	.20000	311.00	.2800-01	.3400-01	.0000	.5755-03	.6927-03	.0000	.4360	4.270	524.1
15	5.0000	.22500	312.00	.2100-01	.2600-01	.0000	.4381-03	.5271-03	.0000	.3320	2.990	523.0
15	5.0000	.25000	313.00	.1600-01	.2000-01	.0000	.3330-03	.4006-03	.0000	.2530	1.930	521.5
15	5.0000	.27500	314.00	.2400-01	.2900-01	.0000	.4844-03	.5828-03	.0000	.3680	2.970	522.6
15	5.0000	.30000	315.00	.2500-01	.3000-01	.0000	.5056-03	.6083-03	.0000	.3840	2.800	523.0
15	5.0000	.32500	316.00	.1400-01	.1700-01	.0000	.2918-03	.3510-03	.0000	.2220	1.790	522.4
15	5.0000	.35000	317.00	.6000-02	.7000-02	.0000	.1232-03	.1482-03	.0000	.9400-01	.6800	521.5
15	5.0000	.37500	318.00	.4000-02	.5000-02	.0000	.8531-04	.1026-03	.0000	.6500-01	.4800	521.2
15	5.0000	.40000	319.00	.2000-02	.2000-02	.0000	.4048-04	.4868-04	.0000	.3100-01	.2500	520.5
15	5.0000	.47500	322.00	.1000-02	.1000-02	.0000	.2487-04	.2989-04	.0000	.1900-01	.1600	518.1
15	6.0000	.20000	323.00	.2500-01	.3000-01	.0000	.5070-03	.6104-03	.0000	.3830	3.330	525.3
15	6.0000	.22500	324.00	.1600-01	.1900-01	.0000	.3227-03	.3884-03	.0000	.2440	2.050	524.1
15	6.0000	.27500	326.00	.1300-01	.1600-01	.0000	.2725-03	.3278-03	.0000	.2070	1.790	522.2
15	6.0000	.30000	327.00	.2400-01	.2800-01	.0000	.4815-03	.5793-03	.0000	.3650	2.880	522.9
15	6.0000	.32500	328.00	.3200-01	.3900-01	.0000	.6587-03	.7933-03	.0000	.4980	4.490	526.1
15	6.0000	.35000	329.00	.2100-01	.2500-01	.0000	.4209-03	.5064-03	.0000	.3190	2.350	522.6
15	6.0000	.37500	330.00	.2300-01	.2700-01	.0000	.4656-03	.5604-03	.0000	.3530	2.810	524.5
15	6.0000	.40000	331.00	.1100-01	.1300-01	.0000	.2146-03	.2582-03	.0000	.1630	1.360	522.6
15	6.0000	.42500	332.00	.8000-02	.9000-02	.0000	.1605-03	.1930-03	.0000	.1220	1.000	520.3
15	6.0000	.45000	333.00	.8000-02	.1000-01	.0000	.1651-03	.1984-03	.0000	.1260	1.040	519.0
15	7.0000	.22500	334.00	.2300-01	.2700-01	.0000	.4625-03	.5567-03	.0000	.3510	3.090	523.9

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
15	7.0000	.25000	335.00	.1900-01	.2300-01	.0000	.3960-03	.4764-03	.0000	.3010	2.350	522.0
15	7.0000	.27500	336.00	.1700-01	.2000-01	.0000	.3385-03	.4071-03	.0000	.2570	2.210	521.1
15	7.0000	.30000	337.00	.1000-01	.1200-01	.0000	.2014-03	.2422-03	.0000	.1530	1.120	520.7
15	7.0000	.32500	338.00	.2100-01	.2500-01	.0000	.4229-03	.5088-03	.0000	.3210	2.690	522.9
15	7.0000	.35000	339.00	.2900-01	.3500-01	.0000	.5887-03	.7084-03	.0000	.4460	3.330	523.3
15	7.0000	.40000	341.00	.2800-01	.3400-01	.0000	.5803-03	.6984-03	.0000	.4400	3.550	524.0
15	7.0000	.45000	343.00	.2400-01	.2900-01	.0000	.4954-03	.5963-03	.0000	.3750	3.060	524.0
15	8.0000	.50000-01	351.00	.9600-01	.1160	.0000	.1967-02	.2375-02	.0000	1.470	12.14	534.7
15	8.0000	.75000-01	352.00	.4800-01	.5700-01	.0000	.9702-03	.1169-02	.0000	.7310	6.100	528.5
15	8.0000	.12500	354.00	.3500-01	.4300-01	.0000	.7321-03	.8820-03	.0000	.5520	4.630	527.7
15	8.0000	.15000	355.00	.3100-01	.3700-01	.0000	.6357-03	.7657-03	.0000	.4800	3.950	527.1
15	8.0000	.17500	356.00	.3600-01	.4400-01	.0000	.7395-03	.8910-03	.0000	.5580	4.030	527.7
15	8.0000	.20000	357.00	.2600-01	.3100-01	.0000	.5231-03	.6301-03	.0000	.3950	3.390	526.9
16	9.0000	.61900-01	161.00	.9000-02	.1100-01	.0000	.1844-03	.2218-03	.0000	.1400	1.190	520.9
16	9.0000	.70900-01	162.00	.9000-02	.1100-01	.0000	.1906-03	.2292-03	.0000	.1450	1.540	521.5
16	9.0000	.80700-01	163.00	.1100-01	.1300-01	.0000	.2261-03	.2719-03	.0000	.1720	1.410	520.6
16	9.0000	.94300-01	164.00	.1800-01	.2200-01	.0000	.3673-03	.4418-03	.0000	.2790	2.160	520.6
16	9.0000	.97800-01	165.00	.1500-01	.1800-01	.0000	.3027-03	.3641-03	.0000	.2300	1.840	521.4
16	9.0000	.10130	166.00	.1400-01	.1700-01	.0000	.2895-03	.3483-03	.0000	.2200	1.730	521.1
16	10.000	.61900-01	167.00	.7000-02	.8000-02	.0000	.1444-03	.1736-03	.0000	.1100	.8200	519.5
16	10.000	.70900-01	168.00	.8000-02	.1000-01	.0000	.1640-03	.1972-03	.0000	.1250	1.200	520.2
16	10.000	.80700-01	169.00	.8000-02	.1000-01	.0000	.1633-03	.1963-03	.0000	.1240	1.030	519.1
16	10.000	.94300-01	170.00	.1400-01	.1700-01	.0000	.2888-03	.3474-03	.0000	.2190	1.770	521.1
16	10.000	.97800-01	171.00	.1300-01	.1500-01	.0000	.2626-03	.3158-03	.0000	.2000	1.670	520.4
16	10.000	.10130	172.00	.1200-01	.1400-01	.0000	.2425-03	.2916-03	.0000	.1840	1.420	520.2
16	11.000	.80700-01	173.00	.3000-02	.3000-02	.0000	.5227-04	.6283-04	.0000	.4000-01	.3000	518.4
16	11.000	.94300-01	174.00	.3000-02	.4000-02	.0000	.6914-04	.8311-04	.0000	.5300-01	.4700	518.4
16	11.000	.97800-01	175.00	.5000-02	.6000-02	.0000	.1092-03	.1312-03	.0000	.8300-01	.5900	518.3
16	11.000	.10130	176.00	.6000-02	.7000-02	.0000	.1142-03	.1372-03	.0000	.8700-01	.6400	518.5

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
35	7.880	42.52	86.46	1196.	89.10	.9770-02	.4250	3646.	.2959-03	.7170-07	.4680	.1047-01
36	7.880	42.52	86.12	1194.	89.00	.9730-02	.4230	3643.	.2952-03	.7158-07	.4670	.1045-01
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
35	.3927-01
36	.3931-01
37	.3934-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
36	1.0000	.00000	367.00	.3500	.4230	.0000	.3662-02	.4486-02	.0000	2.380	20.17	543.7
36	1.0000	.80000-03	368.00	.1890	.2310	.0000	.1978-02	.2415-02	.0000	1.307	10.31	533.2
36	1.0000	.19000-02	369.00	.7700-01	.9400-01	.0000	.8063-03	.9821-03	.0000	.5380	4.610	527.0
36	1.0000	.37000-02	370.00	.5100-01	.6200-01	.0000	.5356-03	.6517-03	.0000	.3590	2.960	523.7
36	1.0000	.87000-02	372.00	.2500-01	.3000-01	.0000	.2605-03	.3168-03	.0000	.1750	1.470	521.8
36	1.0000	.11800-01	373.00	.1900-01	.2300-01	.0000	.1956-03	.2378-03	.0000	.1320	1.010	520.2
36	1.0000	.15100-01	374.00	.1800-01	.2200-01	.0000	.1870-03	.2273-03	.0000	.1260	.9700	520.5
36	1.0000	.18200-01	375.00	.1800-01	.2100-01	.0000	.1835-03	.2230-03	.0000	.1240	.9100	520.1
36	1.0000	.21500-01	376.00	.1400-01	.1700-01	.0000	.1483-03	.1801-03	.0000	.1000+00	.7600	519.2
36	1.0000	.24600-01	377.00	.1700-01	.2100-01	.0000	.1795-03	.2181-03	.0000	.1210	.9500	519.2
36	1.0000	.27800-01	378.00	.1600-01	.1900-01	.0000	.1634-03	.1986-03	.0000	.1100	.9500	519.8
36	1.0000	.60900-01	379.00	.3700-01	.4500-01	.0000	.3855-03	.4684-03	.0000	.2600	2.130	518.8
36	1.0000	.64600-01	380.00	.2400-01	.2900-01	.0000	.2458-03	.2986-03	.0000	.1660	1.630	518.2
36	1.0000	.68400-01	381.00	.2900-01	.3500-01	.0000	.2997-03	.3640-03	.0000	.2020	1.580	518.3
36	1.0000	.72100-01	382.00	.2500-01	.3000-01	.0000	.2562-03	.3112-03	.0000	.1730	1.330	518.2
36	1.0000	.79100-01	384.00	.2100-01	.2600-01	.0000	.2197-03	.2668-03	.0000	.1480	1.070	518.0
36	1.0000	.94300-01	385.00	.2500-01	.3000-01	.0000	.2577-03	.3130-03	.0000	.1740	1.370	518.0
36	1.0000	.97800-01	386.00	.2200-01	.2700-01	.0000	.2286-03	.2776-03	.0000	.1550	1.320	517.6

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
36	1.0000	.10190	387.00	.2200-01	.2700-01	.0000	.2300-03	.2793-03	.0000	.1550	1.280	518.1
36	1.0000	.11600	388.00	.2300-01	.2900-01	.0000	.2452-03	.2979-03	.0000	.1650	1.750	519.1
36	1.0000	.11950	389.00	.3200-01	.3800-01	.0000	.3297-03	.4005-03	.0000	.2230	1.550	518.5
36	1.0000	.12680	391.00	.2600-01	.3200-01	.0000	.2721-03	.3305-03	.0000	.1840	1.160	518.2
36	1.0000	.13050	392.00	.2800-01	.3300-01	.0000	.2874-03	.3491-03	.0000	.1940	1.140	518.0
36	1.0000	.13380	393.00	.2800-01	.3400-01	.0000	.2888-03	.3508-03	.0000	.1950	1.160	518.3
36	1.0000	.13760	394.00	.3200-01	.3900-01	.0000	.3358-03	.4079-03	.0000	.2270	1.360	518.2
36	1.0000	.14110	395.00	.2400-01	.2900-01	.0000	.2505-03	.3043-03	.0000	.1690	1.140	518.0
36	1.0000	.14480	396.00	.2500-01	.3100-01	.0000	.2641-03	.3208-03	.0000	.1780	1.210	518.1
36	1.0000	.14830	397.00	.2400-01	.2900-01	.0000	.2505-03	.3043-03	.0000	.1690	1.150	518.3
36	1.0000	.15190	398.00	.2900-01	.3500-01	.0000	.3005-03	.3650-03	.0000	.2030	1.450	518.5
36	1.0000	.15560	399.00	.3500-01	.4200-01	.0000	.3617-03	.4393-03	.0000	.2440	1.840	518.4
36	1.0000	.15820	400.00	.8600-01	.1050	.0000	.9024-03	.1098-02	.0000	.6060	4.520	522.3
36	1.0000	.16080	401.00	.8000-01	.9700-01	.0000	.8356-03	.1017-02	.0000	.5600	4.350	523.4
36	1.0000	.16350	402.00	.7400-01	.9000-01	.0000	.7714-03	.9389-03	.0000	.5160	4.160	524.5
36	1.0000	.16640	403.00	.6500-01	.7900-01	.0000	.6810-03	.8286-03	.0000	.4560	3.780	523.5
36	2.0000	.00000	367.00	.3500	.4290	.0000	.3662-02	.4486-02	.0000	2.380	20.17	543.7
35	2.0000	.10000-02	273.00	.5170	.6350	.5400	.5419-02	.6650-02	.5655-02	3.500	28.90	549.8
35	2.0000	.18000-02	274.00	.5950	.7310	.6110	.6237-02	.7653-02	.6397-02	4.030	32.92	549.5
35	2.0000	.41000-02	275.00	.7860	.9660	.7880	.8233-02	.1012-01	.8257-02	5.275	42.19	554.9
35	2.0000	.70000-02	276.00	.8930	1.097	.8940	.9351-02	.1149-01	.9367-02	5.998	47.48	554.3
35	2.0000	.10300-01	277.00	.9870	1.214	.9920	.1034-01	.1272-01	.1039-01	6.605	52.40	556.9
35	2.0000	.15100-01	278.00	1.048	1.288	1.059	.1098-01	.1349-01	.1109-01	7.052	55.25	553.5
35	2.0000	.19900-01	279.00	.9020	1.108	.9180	.9444-02	.1160-01	.9612-02	6.067	57.99	553.2
35	2.0000	.23200-01	280.00	.3310	.4040	.3380	.3471-02	.4236-02	.3545-02	2.297	24.49	533.9
35	2.0000	.26300-01	281.00	.8370	1.029	.8600	.8769-02	.1078-01	.9005-02	5.614	65.45	555.5
35	2.0000	.29900-01	282.00	.9670	1.189	.9970	.1013-01	.1246-01	.1045-01	6.500	62.63	554.3
35	2.0000	.33800-01	283.00	.8500	1.043	.8810	.8899-02	.1092-01	.9232-02	5.748	55.28	549.7
35	2.0000	.38100-01	284.00	.7850	.9620	.8190	.8219-02	.1008-01	.8575-02	5.326	51.49	547.7
35	2.0000	.41400-01	285.00	.7940	.9740	.8330	.8320-02	.1020-01	.8721-02	5.388	52.08	548.1
35	2.0000	.45200-01	286.00	.7280	.8910	.7670	.7623-02	.9335-02	.8039-02	4.970	46.15	543.7
35	2.0000	.50300-01	287.00	.7730	.9480	.8210	.8098-02	.9933-02	.8602-02	5.243	50.68	548.3
35	2.0000	.15000	289.00	.4720	.5770	.5210	.4944-02	.6040-02	.5460-02	3.257	24.27	537.0
35	2.0000	.20000	290.00	.4480	.5480	.4980	.4693-02	.5743-02	.5220-02	3.068	26.32	541.9
35	2.0000	.25000	291.00	.4450	.5440	.4980	.4657-02	.5703-02	.5216-02	3.035	24.77	543.9
35	2.0000	.30000	292.00	.3350	.4090	.3750	.3506-02	.4287-02	.3923-02	2.302	18.69	539.1
35	2.0000	.35000	293.00	.3580	.4390	.4010	.3747-02	.4597-02	.4201-02	2.420	20.60	549.6
35	2.0000	.40000	294.00	.2930	.3600	.3290	.3071-02	.3767-02	.3442-02	1.989	16.02	548.1
35	2.0000	.45000	295.00	.2470	.3020	.2760	.2585-02	.3166-02	.2895-02	1.685	12.86	543.9
36	3.0000	.00000	367.00	.3500	.4290	.0000	.3662-02	.4486-02	.0000	2.380	20.17	543.7
35	3.0000	.80000-03	145.00	.2750	.3360	.0000	.2880-02	.3516-02	.0000	1.906	14.22	534.1
35	3.0000	.23000-02	146.00	.2890	.3530	.0000	.3025-02	.3693-02	.0000	1.998	14.62	535.0
35	3.0000	.43000-02	147.00	.2320	.2830	.0000	.2433-02	.2967-02	.0000	1.616	12.08	531.5

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA10)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
35	3.0000	.68000-02	148.00	.2100	.2560	.0000	.2202-02	.2683-02	.0000	1.471	10.65	528.0
35	3.0000	.95000-02	149.00	.1750	.2130	.0000	.1835-02	.2234-02	.0000	1.230	8.600	525.2
35	3.0000	.12200-01	150.00	.1620	.1970	.0000	.1694-02	.2062-02	.0000	1.135	8.000	525.8
35	3.0000	.21800-01	151.00	.1100	.1340	.0000	.1152-02	.1401-02	.0000	.7740	5.570	523.6
35	3.0000	.25100-01	152.00	.1180	.1430	.0000	.1235-02	.1502-02	.0000	.8290	6.180	524.0
35	3.0000	.28600-01	153.00	.1120	.1370	.0000	.1176-02	.1431-02	.0000	.7890	6.530	524.5
35	3.0000	.35400-01	155.00	.1270	.1550	.0000	.1332-02	.1620-02	.0000	.8940	7.190	523.9
35	3.0000	.38700-01	156.00	.1040	.1270	.0000	.1091-02	.1327-02	.0000	.7330	5.960	523.5
35	3.0000	.42000-01	157.00	.1020	.1250	.0000	.1072-02	.1305-02	.0000	.7210	5.920	523.7
35	3.0000	.46200-01	158.00	.1030	.1250	.0000	.1075-02	.1308-02	.0000	.7230	5.940	523.5
35	3.0000	.50300-01	159.00	.9900-01	.1200	.0000	.1034-02	.1258-02	.0000	.6950	6.250	523.9
35	3.0000	.55500-01	160.00	.2500-01	.3000-01	.0000	.2570-03	.3127-03	.0000	.1720	1.650	524.7
36	4.0000	.50000-01	297.00	.1450	.1770	.0000	.1514-02	.1846-02	.0000	1.006	8.420	529.3
36	4.0000	.75000-01	298.00	.1170	.1420	.0000	.1219-02	.1487-02	.0000	.8070	6.700	531.6
36	4.0000	.10000+00	299.00	.1040	.1270	.0000	.1091-02	.1331-02	.0000	.7240	5.850	530.0
36	4.0000	.12500	300.00	.8400-01	.1020	.0000	.8752-03	.1067-02	.0000	.5820	5.190	528.5
36	4.0000	.15000	301.00	.8600-01	.1040	.0000	.8944-03	.1090-02	.0000	.5950	4.770	528.6
36	4.0000	.20000	303.00	.7700-01	.9300-01	.0000	.8017-03	.9764-03	.0000	.5350	4.300	526.3
36	4.0000	.22500	304.00	.4100-01	.5000-01	.0000	.4325-03	.5265-03	.0000	.2890	3.170	525.2
36	4.0000	.25000	305.00	.2100-01	.2600-01	.0000	.2197-03	.2672-03	.0000	.1480	1.180	521.8
36	4.0000	.32500	307.00	.2000-02	.3000-02	.0000	.2393-04	.2908-04	.0000	.1600-01	.1500	519.7
36	4.0000	.37500	308.00	.2000-02	.3000-02	.0000	.2443-04	.2969-04	.0000	.1600-01	.1300	520.2
36	4.0000	.42500	309.00	.4000-02	.5000-02	.0000	.4085-04	.4961-04	.0000	.2800-01	.2100	518.2
36	4.0000	.47500	310.00	.2930	.3970	.0000	.3065-02	.4144-02	.0000	1.404	10.49	735.4
36	5.0000	.20000	311.00	.4500-01	.5500-01	.0000	.4752-03	.5777-03	.0000	.3200	3.130	520.9
36	5.0000	.22500	312.00	.4100-01	.4900-01	.0000	.4252-03	.5168-03	.0000	.2860	2.580	519.9
36	5.0000	.25000	313.00	.3100-01	.3700-01	.0000	.3219-03	.3911-03	.0000	.2170	1.660	519.1
36	5.0000	.27500	314.00	.4400-01	.5400-01	.0000	.4613-03	.5605-03	.0000	.3110	2.510	519.5
36	5.0000	.30000	315.00	.3800-01	.4600-01	.0000	.3925-03	.4769-03	.0000	.2650	1.940	519.1
36	5.0000	.32500	316.00	.2100-01	.2500-01	.0000	.2151-03	.2612-03	.0000	.1450	1.170	518.4
36	5.0000	.35000	317.00	.2200-01	.2700-01	.0000	.2351-03	.2854-03	.0000	.1590	1.150	517.5
36	5.0000	.37500	318.00	.7000-02	.9000-02	.0000	.7399-04	.8986-04	.0000	.5000-01	.3700	517.7
36	5.0000	.40000	319.00	.4000-02	.5000-02	.0000	.4629-04	.5620-04	.0000	.3100-01	.2500	517.1
36	5.0000	.47500	322.00	.3000-02	.4000-02	.0000	.3092-04	.3751-04	.0000	.2100-01	.1800	514.5
36	6.0000	.20000	323.00	.5000-01	.6100-01	.0000	.5205-03	.6329-03	.0000	.3500	3.040	521.8
36	6.0000	.22500	324.00	.5200-01	.6300-01	.0000	.5444-03	.6618-03	.0000	.3660	3.080	520.8
36	6.0000	.27500	326.00	.2900-01	.3600-01	.0000	.3064-03	.3723-03	.0000	.2060	1.780	519.8
36	6.0000	.30000	327.00	.3800-01	.4700-01	.0000	.4018-03	.4882-03	.0000	.2710	2.140	519.7
36	6.0000	.32500	328.00	.4400-01	.5400-01	.0000	.4613-03	.5608-03	.0000	.3110	2.810	520.4
36	6.0000	.35000	329.00	.3300-01	.4000-01	.0000	.3430-03	.4167-03	.0000	.2310	1.710	519.2
36	6.0000	.37500	330.00	.2600-01	.3200-01	.0000	.2738-03	.3327-03	.0000	.1850	1.480	518.7
36	6.0000	.40000	331.00	.2100-01	.2600-01	.0000	.2239-03	.2719-03	.0000	.1510	1.270	517.2
36	6.0000	.42500	332.00	.1100-01	.1400-01	.0000	.1168-03	.1418-03	.0000	.7900-01	.6500	516.2

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA10)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
36	6.0000	.45000	333.00	.1000-02	.1000-02	.0000	.8018-05	.9729-05	.0000	.5000-02	.5000-01	515.2
36	7.0000	.22500	334.00	.3300-01	.4000-01	.0000	.3435-03	.4175-03	.0000	.2310	2.040	520.5
36	7.0000	.25000	335.00	.2300-01	.2800-01	.0000	.2443-03	.2970-03	.0000	.1640	1.280	520.5
36	7.0000	.27500	336.00	.2000-01	.2400-01	.0000	.2057-03	.2500-03	.0000	.1390	1.190	519.6
36	7.0000	.30000	337.00	.2900-01	.3500-01	.0000	.3036-03	.3688-03	.0000	.2050	1.500	518.6
36	7.0000	.32500	338.00	.3700-01	.4500-01	.0000	.3891-03	.4728-03	.0000	.2620	2.200	519.3
36	7.0000	.35000	339.00	.4600-01	.5600-01	.0000	.4776-03	.5802-03	.0000	.3220	2.410	518.7
36	7.0000	.40000	341.00	.2100-01	.2500-01	.0000	.2191-03	.2661-03	.0000	.1480	1.200	518.6
36	7.0000	.45000	343.00	.1700-01	.2100-01	.0000	.1809-03	.2196-03	.0000	.1220	1.000	517.3
36	8.0000	.50000-01	351.00	.1090	.1330	.0000	.1137-02	.1385-02	.0000	.7550	6.260	529.1
36	8.0000	.75000-01	352.00	.7400-01	.9000-01	.0000	.7763-03	.9448-03	.0000	.5200	4.350	524.2
36	8.0000	.12500	354.00	.5400-01	.6600-01	.0000	.5635-03	.6855-03	.0000	.3780	3.170	523.2
36	8.0000	.15000	355.00	.5300-01	.6500-01	.0000	.5575-03	.6782-03	.0000	.3740	3.090	522.8
36	8.0000	.17500	356.00	.5800-01	.7100-01	.0000	.6096-03	.7416-03	.0000	.4090	2.960	523.0
36	8.0000	.20000	357.00	.4900-01	.5900-01	.0000	.5110-03	.6215-03	.0000	.3430	2.950	522.5
37	9.0000	.61900-01	161.00	.2000-01	.2400-01	.0000	.2092-03	.2543-03	.0000	.1410	1.200	519.0
37	9.0000	.70900-01	162.00	.2200-01	.2600-01	.0000	.2244-03	.2728-03	.0000	.1510	1.600	519.5
37	9.0000	.80700-01	163.00	.2200-01	.2600-01	.0000	.2262-03	.2750-03	.0000	.1520	1.250	518.6
37	9.0000	.94300-01	164.00	.2400-01	.3000-01	.0000	.2554-03	.3103-03	.0000	.1720	1.330	518.3
37	9.0000	.97800-01	165.00	.1800-01	.2200-01	.0000	.1890-03	.2297-03	.0000	.1270	1.020	519.2
37	9.0000	.10130	166.00	.1600-01	.1900-01	.0000	.1628-03	.1978-03	.0000	.1090	.8600	518.7
37	10.000	.61900-01	167.00	.1000-01	.1200-01	.0000	.1026-03	.1246-03	.0000	.6900-01	.5100	517.4
37	10.000	.70900-01	168.00	.1200-01	.1400-01	.0000	.1213-03	.1473-03	.0000	.8200-01	.7800	517.8
37	10.000	.80700-01	169.00	.1200-01	.1500-01	.0000	.1245-03	.1512-03	.0000	.8400-01	.7000	517.5
37	10.000	.94300-01	170.00	.1900-01	.2300-01	.0000	.1998-03	.2428-03	.0000	.1340	1.080	518.9
37	10.000	.97800-01	171.00	.1800-01	.2200-01	.0000	.1880-03	.2285-03	.0000	.1260	1.060	518.7
37	10.000	.10130	172.00	.1500-01	.1900-01	.0000	.1610-03	.1956-03	.0000	.1080	.8400	518.4
37	11.000	.80700-01	173.00	.5000-02	.7000-02	.0000	.5579-04	.6778-04	.0000	.3800-01	.2800	517.3
37	11.000	.94300-01	174.00	.7000-02	.9000-02	.0000	.7329-04	.8903-04	.0000	.4900-01	.4400	517.3
37	11.000	.97800-01	175.00	.1000-01	.1200-01	.0000	.1026-03	.1246-03	.0000	.6900-01	.4900	517.1
37	11.000	.10130	176.00	.9000-02	.1100-01	.0000	.9618-04	.1168-03	.0000	.6500-01	.4800	517.2

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.55 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
62	7.930	42.55	166.0	1223.	90.10	.1800-01	.7920	3689.	.5395-03	.7247-07	.8540	.1436-01
63	7.930	42.56	165.0	1223.	90.10	.1790-01	.7880	3689.	.5362-03	.7247-07	.8480	.1432-01
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
62	.2916-01
63	.2924-01
64	.2905-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
63	1.0000	.00000	367.00	.3790	.4630	.0000	.5430-02	.6632-02	.0000	3.661	30.95	548.4
63	1.0000	.80000-03	368.00	.2170	.2640	.0000	.3108-02	.3778-02	.0000	2.143	16.90	533.2
63	1.0000	.19000-02	369.00	.7600-01	.9200-01	.0000	.1083-02	.1313-02	.0000	.7570	6.500	523.9
63	1.0000	.37000-02	370.00	.5600-01	.6800-01	.0000	.8090-03	.9790-03	.0000	.5700	4.710	518.5
63	1.0000	.87000-02	372.00	.2900-01	.3500-01	.0000	.4107-03	.4966-03	.0000	.2900	2.450	516.0
63	1.0000	.11800-01	373.00	.2000-01	.2400-01	.0000	.2858-03	.3455-03	.0000	.2020	1.560	514.9
63	1.0000	.15100-01	374.00	.1700-01	.2000-01	.0000	.2393-03	.2893-03	.0000	.1690	1.310	515.0
63	1.0000	.18200-01	375.00	.1800-01	.2200-01	.0000	.2556-03	.3089-03	.0000	.1810	1.340	514.6
63	1.0000	.21500-01	376.00	.1400-01	.1700-01	.0000	.1968-03	.2379-03	.0000	.1390	1.070	514.4
63	1.0000	.24600-01	377.00	.1800-01	.2200-01	.0000	.2647-03	.3199-03	.0000	.1880	1.470	514.1
63	1.0000	.27800-01	378.00	.2000-01	.2400-01	.0000	.2795-03	.3379-03	.0000	.1980	1.710	515.1
63	1.0000	.60900-01	379.00	.3700-01	.4500-01	.0000	.5322-03	.6434-03	.0000	.3760	3.090	515.4
63	1.0000	.64600-01	380.00	.2500-01	.3000-01	.0000	.3533-03	.4270-03	.0000	.2500	2.460	514.3
63	1.0000	.68400-01	381.00	.3000-01	.3600-01	.0000	.4257-03	.5146-03	.0000	.3020	2.350	514.4
63	1.0000	.72100-01	382.00	.2600-01	.3100-01	.0000	.3679-03	.4446-03	.0000	.2610	2.010	514.4
63	1.0000	.79100-01	384.00	.2300-01	.2800-01	.0000	.3344-03	.4042-03	.0000	.2370	1.720	514.9
63	1.0000	.94300-01	385.00	.2800-01	.3300-01	.0000	.3952-03	.4778-03	.0000	.2800	2.200	514.8
63	1.0000	.97800-01	386.00	.2300-01	.2800-01	.0000	.3320-03	.4013-03	.0000	.2350	2.000	515.1

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA10)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
63	1.0000	.10190	387.00	.2300-01	.2800-01	.0000	.3298-03	.3987-03	.0000	.2330	1.920	515.8
63	1.0000	.11600	388.00	.2500-01	.3000-01	.0000	.3536-03	.4277-03	.0000	.2500	2.650	516.9
63	1.0000	.11950	389.00	.3200-01	.3800-01	.0000	.4530-03	.5478-03	.0000	.3200	2.230	515.9
63	1.0000	.12680	391.00	.2200-01	.2700-01	.0000	.3172-03	.3835-03	.0000	.2240	1.420	515.4
63	1.0000	.13050	392.00	.2800-01	.3400-01	.0000	.4063-03	.4912-03	.0000	.2870	1.690	515.3
63	1.0000	.13380	393.00	.2900-01	.3500-01	.0000	.4158-03	.5027-03	.0000	.2940	1.750	515.6
63	1.0000	.13760	394.00	.2700-01	.3300-01	.0000	.3872-03	.4681-03	.0000	.2740	1.650	515.3
63	1.0000	.14110	395.00	.2500-01	.3000-01	.0000	.3586-03	.4336-03	.0000	.2540	1.710	515.1
63	1.0000	.14480	396.00	.2500-01	.3000-01	.0000	.3554-03	.4297-03	.0000	.2510	1.710	515.4
63	1.0000	.14830	397.00	.2500-01	.3000-01	.0000	.3578-03	.4326-03	.0000	.2530	1.720	515.4
63	1.0000	.15190	398.00	.3100-01	.3800-01	.0000	.4504-03	.5445-03	.0000	.3190	2.290	515.2
63	1.0000	.15560	399.00	.4200-01	.5100-01	.0000	.6084-03	.7355-03	.0000	.4300	3.250	515.2
63	1.0000	.15820	400.00	.9300-01	.1130	.0000	.1333-02	.1614-02	.0000	.9350	6.980	521.3
63	1.0000	.16080	401.00	.8100-01	.9900-01	.0000	.1166-02	.1413-02	.0000	.8170	6.340	522.4
63	1.0000	.16350	402.00	.7400-01	.9000-01	.0000	.1058-02	.1282-02	.0000	.7390	5.960	523.9
63	1.0000	.16640	403.00	.6600-01	.8000-01	.0000	.9498-03	.1151-02	.0000	.6650	5.510	522.4
63	2.0000	.00000	367.00	.3790	.4630	.0000	.5430-02	.6632-02	.0000	3.661	30.95	548.4
62	2.0000	.10000-02	273.00	.5430	.6670	.5670	.7799-02	.9578-02	.8142-02	5.136	42.11	564.1
62	2.0000	.18000-02	274.00	.6150	.7560	.6310	.8837-02	.1086-01	.9065-02	5.801	46.99	566.2
62	2.0000	.41000-02	275.00	.7820	.9630	.7840	.1123-01	.1384-01	.1127-01	7.299	57.86	572.8
62	2.0000	.70000-02	276.00	.8110	.9990	.8130	.1165-01	.1435-01	.1168-01	7.591	59.58	571.4
62	2.0000	.10300-01	277.00	1.012	1.247	1.017	.1453-01	.1791-01	.1460-01	9.426	74.14	574.1
62	2.0000	.15100-01	278.00	.8090	.9950	.8170	.1162-01	.1429-01	.1173-01	7.583	58.92	569.9
62	2.0000	.19900-01	279.00	.7520	.9250	.7660	.1081-01	.1329-01	.1100-01	7.072	67.08	568.4
62	2.0000	.23200-01	280.00	.3620	.4410	.3700	.5204-02	.6335-02	.5314-02	3.565	37.95	537.6
62	2.0000	.26300-01	281.00	.5900	.7270	.6060	.8481-02	.1044-01	.8710-02	5.528	63.95	570.9
62	2.0000	.29900-01	282.00	.8330	1.024	.8580	.1196-01	.1471-01	.1233-01	7.824	74.86	568.6
62	2.0000	.33800-01	283.00	.7360	.9030	.7630	.1057-01	.1297-01	.1096-01	6.972	66.61	562.8
62	2.0000	.38100-01	284.00	.6810	.8350	.7100	.9777-02	.1199-01	.1020-01	6.475	62.20	560.4
62	2.0000	.41400-01	285.00	.7130	.8750	.7480	.1024-01	.1257-01	.1074-01	6.780	65.12	560.9
62	2.0000	.45200-01	286.00	.5550	.6800	.5850	.7975-02	.9767-02	.8410-02	5.317	49.05	556.0
62	2.0000	.50300-01	287.00	.7400	.9080	.7860	.1063-01	.1304-01	.1129-01	7.036	67.58	560.9
62	2.0000	.15000	289.00	.5180	.6320	.5720	.7446-02	.9079-02	.8215-02	5.062	37.61	542.9
62	2.0000	.20000	290.00	.6560	.8010	.7290	.9419-02	.1151-01	.1047-01	6.340	54.17	549.5
62	2.0000	.25000	291.00	.6260	.7650	.7000	.8985-02	.1098-01	.1005-01	6.038	49.11	550.6
62	2.0000	.30000	292.00	.4240	.5180	.4740	.6088-02	.7434-02	.6807-02	4.110	33.23	547.6
62	2.0000	.35000	293.00	.5530	.6790	.6200	.7949-02	.9758-02	.8913-02	5.244	44.34	563.0
62	2.0000	.40000	294.00	.4250	.5220	.4770	.6106-02	.7498-02	.6847-02	4.023	32.15	563.8
62	2.0000	.45000	295.00	.3340	.4090	.3740	.4794-02	.5879-02	.5372-02	3.176	24.04	560.1
63	3.0000	.00000	367.00	.3790	.4630	.0000	.5430-02	.6632-02	.0000	3.661	30.95	548.4
62	3.0000	.80000-03	145.00	.2490	.3030	.0000	.3572-02	.4355-02	.0000	2.428	18.04	542.9
62	3.0000	.23000-02	146.00	.2710	.3310	.0000	.3894-02	.4751-02	.0000	2.641	19.22	544.5
62	3.0000	.43000-02	147.00	.2210	.2690	.0000	.3172-02	.3863-02	.0000	2.167	16.13	539.3

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
62	3.0000	.68000-02	148.00	.2010	.2440	.0000	.2882-02	.3506-02	.0000	1.981	14.30	535.3
62	3.0000	.95000-02	149.00	.1700	.2070	.0000	.2445-02	.2970-02	.0000	1.690	11.77	531.3
62	3.0000	.12200-01	150.00	.1580	.1930	.0000	.2276-02	.2766-02	.0000	1.571	11.04	532.3
62	3.0000	.21800-01	151.00	.1080	.1310	.0000	.1555-02	.1887-02	.0000	1.079	7.740	528.9
62	3.0000	.25100-01	152.00	.1150	.1390	.0000	.1651-02	.2004-02	.0000	1.146	8.520	528.3
62	3.0000	.28600-01	153.00	.1100	.1330	.0000	.1577-02	.1914-02	.0000	1.094	9.030	528.8
62	3.0000	.35400-01	155.00	.1190	.1450	.0000	.1716-02	.2082-02	.0000	1.192	9.560	527.8
62	3.0000	.38700-01	156.00	.1010	.1230	.0000	.1457-02	.1768-02	.0000	1.013	8.220	527.3
62	3.0000	.42000-01	157.00	.1030	.1260	.0000	.1486-02	.1803-02	.0000	1.033	8.470	527.5
62	3.0000	.46200-01	158.00	.9900-01	.1200	.0000	.1415-02	.1717-02	.0000	.9840	8.070	527.3
62	3.0000	.50300-01	159.00	.9900-01	.1200	.0000	.1425-02	.1729-02	.0000	.9900	8.900	527.6
62	3.0000	.55500-01	160.00	.3000-02	.4000-02	.0000	.4231-04	.5130-04	.0000	.3000-01	.2800	525.2
63	4.0000	.25000-01	296.00	.2000-02	.2000-02	.0000	.2149-04	.2774-04	.0000	.1200-01	.8000-01	680.2
63	4.0000	.50000-01	297.00	.1510	.1840	.0000	.2166-02	.2628-02	.0000	1.505	12.62	527.7
63	4.0000	.75000-01	298.00	.1350	.1650	.0000	.1939-02	.2356-02	.0000	1.338	11.11	532.4
63	4.0000	.10000+00	299.00	.1230	.1490	.0000	.1758-02	.2135-02	.0000	1.216	9.810	531.1
63	4.0000	.12500	300.00	.1040	.1260	.0000	.1489-02	.1808-02	.0000	1.033	9.200	529.3
63	4.0000	.15000	301.00	.1010	.1230	.0000	.1453-02	.1765-02	.0000	1.004	8.040	531.2
63	4.0000	.20000	303.00	.9200-01	.1120	.0000	.1319-02	.1601-02	.0000	.9170	7.360	527.6
63	4.0000	.22500	304.00	.5000-01	.6100-01	.0000	.7230-03	.8768-03	.0000	.5040	5.530	525.8
63	4.0000	.25000	305.00	.3100-01	.3700-01	.0000	.4377-03	.5301-03	.0000	.3070	2.440	521.4
63	4.0000	.32500	307.00	.4000-02	.5000-02	.0000	.5377-04	.6507-04	.0000	.3800-01	.3500	518.7
63	4.0000	.37500	308.00	.1000-02	.2000-02	.0000	.2009-04	.2433-04	.0000	.1400-01	.1100	520.4
63	4.0000	.42500	309.00	.1000-02	.1000-02	.0000	.1700-04	.2058-04	.0000	.1200-01	.9000-01	518.3
63	4.0000	.47500	310.00	.1000-02	.1000-02	.0000	.1127-04	.1363-04	.0000	.8000-02	.7000-01	515.8
63	5.0000	.20000	311.00	.5800-01	.7000-01	.0000	.8298-03	.1004-02	.0000	.5830	5.720	519.6
63	5.0000	.22500	312.00	.4400-01	.5400-01	.0000	.6363-03	.7703-03	.0000	.4470	4.030	520.0
63	5.0000	.25000	313.00	.3700-01	.4500-01	.0000	.5326-03	.6443-03	.0000	.3760	2.860	517.6
63	5.0000	.27500	314.00	.4500-01	.5500-01	.0000	.6468-03	.7829-03	.0000	.4550	3.680	518.9
63	5.0000	.30000	315.00	.4100-01	.5000-01	.0000	.5930-03	.7174-03	.0000	.4180	3.060	518.0
63	5.0000	.32500	316.00	.3100-01	.3800-01	.0000	.4454-03	.5387-03	.0000	.3140	2.540	517.1
63	5.0000	.35000	317.00	.1400-01	.1700-01	.0000	.2069-03	.2502-03	.0000	.1460	1.060	517.1
63	5.0000	.37500	318.00	.8000-02	.1000-01	.0000	.1184-03	.1432-03	.0000	.8400-01	.6300	516.7
63	5.0000	.40000	319.00	.5000-02	.6000-02	.0000	.6685-04	.8083-04	.0000	.4700-01	.3800	516.0
63	5.0000	.47500	322.00	.3000-02	.3000-02	.0000	.3973-04	.4800-04	.0000	.2800-01	.2500	513.5
63	6.0000	.20000	323.00	.6200-01	.7500-01	.0000	.8817-03	.1068-02	.0000	.6180	5.380	521.2
63	6.0000	.22500	324.00	.4100-01	.5000-01	.0000	.5933-03	.7185-03	.0000	.4160	3.500	520.8
63	6.0000	.27500	326.00	.3500-01	.4200-01	.0000	.5002-03	.6053-03	.0000	.3520	3.050	518.4
63	6.0000	.30000	327.00	.4500-01	.5400-01	.0000	.6444-03	.7799-03	.0000	.4540	3.580	518.8
63	6.0000	.32500	328.00	.5200-01	.6200-01	.0000	.7384-03	.8938-03	.0000	.5190	4.700	519.6
63	6.0000	.35000	329.00	.4200-01	.5000-01	.0000	.5969-03	.7222-03	.0000	.4210	3.100	518.0
63	6.0000	.37500	330.00	.3300-01	.4000-01	.0000	.4758-03	.5758-03	.0000	.3350	2.680	518.2
63	6.0000	.40000	331.00	.1900-01	.2300-01	.0000	.2702-03	.3267-03	.0000	.1910	1.600	516.5

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
63	6.0000	.42500	332.00	.1500-01	.1800-01	.0000	.2123-03	.2567-03	.0000	.1500	1.230	514.8
63	6.0000	.45000	333.00	.1400-01	.1700-01	.0000	.2037-03	.2462-03	.0000	.1440	1.200	513.8
63	7.0000	.22500	334.00	.5500-01	.6600-01	.0000	.7815-03	.9461-03	.0000	.5490	4.860	520.1
63	7.0000	.25000	335.00	.4700-01	.5700-01	.0000	.6696-03	.8102-03	.0000	.4720	3.680	518.2
63	7.0000	.27500	336.00	.4300-01	.5200-01	.0000	.6138-03	.7427-03	.0000	.4330	3.730	518.0
63	7.0000	.30000	337.00	.3500-01	.4200-01	.0000	.4946-03	.5982-03	.0000	.3490	2.560	516.9
63	7.0000	.32500	338.00	.4200-01	.5100-01	.0000	.6031-03	.7299-03	.0000	.4250	3.560	518.8
63	7.0000	.35000	339.00	.3900-01	.4700-01	.0000	.5557-03	.6725-03	.0000	.3910	2.930	518.4
63	7.0000	.40000	341.00	.4200-01	.5100-01	.0000	.6016-03	.7280-03	.0000	.4240	3.430	518.2
63	7.0000	.45000	343.00	.2900-01	.3400-01	.0000	.4060-03	.4909-03	.0000	.2870	2.350	515.8
63	8.0000	.50000-01	351.00	.1350	.1640	.0000	.1939-02	.2352-02	.0000	1.350	11.20	526.5
63	8.0000	.75000-01	352.00	.8300-01	.1000+00	.0000	.1182-02	.1432-02	.0000	.8280	6.940	521.8
63	8.0000	.12500	354.00	.7000-01	.8500-01	.0000	.1005-02	.1218-02	.0000	.7040	5.920	522.1
63	8.0000	.15000	355.00	.7400-01	.9000-01	.0000	.1063-02	.1287-02	.0000	.7450	6.150	521.5
63	8.0000	.17500	356.00	.8200-01	.9900-01	.0000	.1172-02	.1421-02	.0000	.8200	5.940	523.3
63	8.0000	.20000	357.00	.6600-01	.7900-01	.0000	.9382-03	.1137-02	.0000	.6560	5.640	523.1
64	9.0000	.61900-01	161.00	.2300-01	.2700-01	.0000	.3248-03	.3928-03	.0000	.2300	1.960	516.7
64	9.0000	.70900-01	162.00	.2400-01	.2900-01	.0000	.3508-03	.4242-03	.0000	.2480	2.640	516.5
64	9.0000	.80700-01	163.00	.2500-01	.3000-01	.0000	.3597-03	.4348-03	.0000	.2550	2.090	515.6
64	9.0000	.94300-01	164.00	.2800-01	.3400-01	.0000	.4064-03	.4913-03	.0000	.2880	2.230	515.6
64	9.0000	.97800-01	165.00	.1900-01	.2300-01	.0000	.2771-03	.3351-03	.0000	.1960	1.570	516.6
64	9.0000	.10130	166.00	.1800-01	.2200-01	.0000	.2585-03	.3126-03	.0000	.1830	1.440	515.2
64	10.000	.61900-01	167.00	.1300-01	.1600-01	.0000	.1936-03	.2340-03	.0000	.1370	1.030	514.4
64	10.000	.70900-01	168.00	.1500-01	.1800-01	.0000	.2162-03	.2613-03	.0000	.1530	1.470	514.9
64	10.000	.80700-01	169.00	.1400-01	.1700-01	.0000	.2086-03	.2521-03	.0000	.1480	1.230	514.4
64	10.000	.94300-01	170.00	.2300-01	.2800-01	.0000	.3290-03	.3977-03	.0000	.2330	1.880	516.0
64	10.000	.97800-01	171.00	.2100-01	.2500-01	.0000	.3001-03	.3628-03	.0000	.2120	1.780	515.8
64	10.000	.10130	172.00	.1900-01	.2300-01	.0000	.2705-03	.3270-03	.0000	.1910	1.480	515.7
64	11.000	.80700-01	173.00	.1000-01	.1200-01	.0000	.1402-03	.1694-03	.0000	.9900-01	.7500	514.7
64	11.000	.94300-01	174.00	.1100-01	.1300-01	.0000	.1556-03	.1881-03	.0000	.1100	.9800	515.0
64	11.000	.97800-01	175.00	.1400-01	.1700-01	.0000	.2047-03	.2474-03	.0000	.1450	1.020	514.8
64	11.000	.10130	176.00	.1300-01	.1500-01	.0000	.1835-03	.2217-03	.0000	.1300	.9600	514.8

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
17	7.970	42.53	337.1	1278.	93.20	.3540-01	1.573	3772.	.1024-02	.7502-07	1.600	.2040-01
18	7.970	42.52	337.7	1276.	93.10	.3540-01	1.576	3770.	.1028-02	.7491-07	1.610	.2041-01
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
17	.2126-01
18	.2122-01
19	.2120-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
18	1.0000	.00000	367.00	.3880	.4730	.0000	.7914-02	.9650-02	.0000	5.610	46.99	566.7
18	1.0000	.80000-03	368.00	.2520	.3050	.0000	.5140-02	.6231-02	.0000	3.745	29.33	547.1
18	1.0000	.19000-02	369.00	.1200	.1450	.0000	.2445-02	.2954-02	.0000	1.811	15.47	534.8
18	1.0000	.37000-02	370.00	.7700-01	.9200-01	.0000	.1564-02	.1886-02	.0000	1.172	9.650	526.6
18	1.0000	.87000-02	372.00	.3800-01	.4500-01	.0000	.7691-03	.9259-03	.0000	.5790	4.870	522.4
18	1.0000	.11800-01	373.00	.2700-01	.3300-01	.0000	.5612-03	.6753-03	.0000	.4240	3.260	520.7
18	1.0000	.15100-01	374.00	.2200-01	.2700-01	.0000	.4514-03	.5431-03	.0000	.3410	2.630	520.1
18	1.0000	.18200-01	375.00	.1900-01	.2300-01	.0000	.3923-03	.4719-03	.0000	.2970	2.190	519.1
18	1.0000	.21500-01	376.00	.1400-01	.1600-01	.0000	.2793-03	.3359-03	.0000	.2110	1.620	518.7
18	1.0000	.24600-01	377.00	.1400-01	.1700-01	.0000	.2944-03	.3541-03	.0000	.2230	1.740	519.1
18	1.0000	.27800-01	378.00	.1100-01	.1300-01	.0000	.2226-03	.2677-03	.0000	.1680	1.460	518.7
18	1.0000	.60900-01	379.00	.1500-01	.1800-01	.0000	.3076-03	.3700-03	.0000	.2330	1.910	518.8
18	1.0000	.64600-01	380.00	.1200-01	.1400-01	.0000	.2380-03	.2862-03	.0000	.1800	1.770	517.8
18	1.0000	.68400-01	381.00	.1500-01	.1800-01	.0000	.3085-03	.3710-03	.0000	.2340	1.820	518.0
18	1.0000	.72100-01	382.00	.1500-01	.1800-01	.0000	.3009-03	.3618-03	.0000	.2280	1.760	518.0
18	1.0000	.79100-01	384.00	.1600-01	.1900-01	.0000	.3238-03	.3893-03	.0000	.2450	1.770	518.0
18	1.0000	.94300-01	385.00	.2300-01	.2800-01	.0000	.4753-03	.5716-03	.0000	.3600	2.820	518.7
18	1.0000	.97800-01	386.00	.2200-01	.2700-01	.0000	.4567-03	.5492-03	.0000	.3460	2.940	518.5

OH103A.AEDC V41B-V2. ORB FUS (LONG RADIANS) (R4HA10)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
18	1.0000	.10190	387.00	.2400-01	.2900-01	.0000	.4918-03	.5915-03	.0000	.3720	3.050	519.3
18	1.0000	.11600	388.00	.2800-01	.3300-01	.0000	.5613-03	.6756-03	.0000	.4230	4.480	521.5
18	1.0000	.11950	389.00	.3500-01	.4200-01	.0000	.7125-03	.8574-03	.0000	.5380	3.730	520.8
18	1.0000	.12680	391.00	.3300-01	.4000-01	.0000	.6747-03	.8117-03	.0000	.5100	3.220	519.5
18	1.0000	.13050	392.00	.3500-01	.4200-01	.0000	.7168-03	.8622-03	.0000	.5420	3.190	519.3
18	1.0000	.13380	393.00	.3400-01	.4100-01	.0000	.7027-03	.8453-03	.0000	.5310	3.160	519.6
18	1.0000	.13760	394.00	.3300-01	.3900-01	.0000	.6658-03	.8010-03	.0000	.5030	3.020	519.7
18	1.0000	.14110	395.00	.3000-01	.3600-01	.0000	.6149-03	.7396-03	.0000	.4650	3.130	519.2
18	1.0000	.14480	396.00	.3100-01	.3800-01	.0000	.6381-03	.7676-03	.0000	.4820	3.280	519.7
18	1.0000	.14830	397.00	.3000-01	.3600-01	.0000	.6025-03	.7248-03	.0000	.4560	3.100	519.4
18	1.0000	.15190	398.00	.3300-01	.4000-01	.0000	.6777-03	.8152-03	.0000	.5120	3.670	519.6
18	1.0000	.15560	399.00	.4300-01	.5100-01	.0000	.8704-03	.1047-02	.0000	.6580	4.970	519.6
18	1.0000	.15820	400.00	.9100-01	.1100	.0000	.1867-02	.2251-02	.0000	1.396	10.38	527.9
18	1.0000	.16080	401.00	.8400-01	.1010	.0000	.1712-02	.2065-02	.0000	1.278	9.890	529.1
18	1.0000	.16350	402.00	.8700-01	.1040	.0000	.1767-02	.2132-02	.0000	1.317	10.59	530.3
18	1.0000	.16640	403.00	.8500-01	.1020	.0000	.1729-02	.2085-02	.0000	1.293	10.68	527.8
18	2.0000	.00000	367.00	.3880	.4730	.0000	.7914-02	.9650-02	.0000	5.610	46.99	566.7
17	2.0000	.10000-02	273.00	.5010	.6130	.5230	.1022-01	.1250-01	.1066-01	7.142	58.13	578.6
17	2.0000	.18000-02	274.00	.5410	.6620	.5540	.1103-01	.1350-01	.1130-01	7.662	61.77	580.9
17	2.0000	.41000-02	275.00	.5340	.6550	.5350	.1089-01	.1337-01	.1092-01	7.512	59.11	587.9
17	2.0000	.70000-02	276.00	.5320	.6530	.5330	.1086-01	.1332-01	.1088-01	7.510	58.51	586.1
17	2.0000	.10300-01	277.00	.5100	.6250	.5120	.1039-01	.1275-01	.1044-01	7.185	56.16	586.5
17	2.0000	.15100-01	278.00	.5560	.6830	.5620	.1134-01	.1392-01	.1145-01	7.822	60.24	588.0
17	2.0000	.19900-01	279.00	.3550	.4340	.3610	.7236-02	.8854-02	.7362-02	5.059	47.75	578.5
17	2.0000	.23200-01	280.00	.1160	.1410	.1190	.2374-02	.2873-02	.2423-02	1.749	18.59	540.9
17	2.0000	.26300-01	281.00	.3160	.3870	.3240	.6445-02	.7897-02	.6615-02	4.477	51.48	583.0
17	2.0000	.29900-01	282.00	.3350	.4090	.3450	.6825-02	.8351-02	.7031-02	4.774	45.46	578.2
17	2.0000	.33800-01	283.00	.2980	.3640	.3090	.6080-02	.7421-02	.6302-02	4.297	40.88	571.0
17	2.0000	.38100-01	284.00	.2780	.3390	.2900	.5673-02	.6919-02	.5913-02	4.026	38.53	568.0
17	2.0000	.41400-01	285.00	.2670	.3260	.2800	.5446-02	.6642-02	.5702-02	3.864	36.98	568.1
17	2.0000	.45200-01	286.00	.2650	.3230	.2790	.5407-02	.6586-02	.5694-02	3.860	35.47	563.8
17	2.0000	.50300-01	287.00	.2440	.2980	.2590	.4972-02	.6068-02	.5274-02	3.519	33.65	569.9
17	2.0000	.15000	289.00	.1390	.1690	.1540	.2845-02	.3452-02	.3132-02	2.065	15.28	551.6
17	2.0000	.20000	290.00	.1190	.1450	.1320	.2436-02	.2961-02	.2700-02	1.753	14.92	557.9
17	2.0000	.25000	291.00	.1090	.1320	.1210	.2214-02	.2695-02	.2471-02	1.585	12.82	561.8
17	2.0000	.30000	292.00	.8900-01	.1080	.9900-01	.1811-02	.2203-02	.2021-02	1.303	10.48	558.6
17	2.0000	.35000	293.00	.1220	.1500	.1370	.2491-02	.3050-02	.2790-02	1.737	14.55	580.6
17	2.0000	.40000	294.00	.1440	.1770	.1620	.2939-02	.3604-02	.3294-02	2.035	16.09	585.3
17	2.0000	.45000	295.00	.1880	.2310	.2110	.3838-02	.4712-02	.4304-02	2.645	19.74	588.5
18	3.0000	.00000	367.00	.3880	.4730	.0000	.7914-02	.9650-02	.0000	5.610	46.99	566.7
17	3.0000	.80000-03	145.00	.3000	.3650	.0000	.6127-02	.7438-02	.0000	4.441	32.83	552.8
17	3.0000	.23000-02	146.00	.3050	.3700	.0000	.6212-02	.7541-02	.0000	4.504	32.65	552.6
17	3.0000	.43000-02	147.00	.2360	.2860	.0000	.4819-02	.5837-02	.0000	3.531	26.21	544.9

OH103A,AEDC V418-V2. ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
17	3.0000	.68000-02	148.00	.1900	.2300	.0000	.3881-02	.4691-02	.0000	2.871	20.70	537.8
17	3.0000	.95000-02	149.00	.1550	.1870	.0000	.3159-02	.3812-02	.0000	2.356	16.40	531.8
17	3.0000	.12200-01	150.00	.1470	.1780	.0000	.3003-02	.3626-02	.0000	2.232	15.67	534.3
17	3.0000	.21800-01	151.00	.8800-01	.1060	.0000	.1801-02	.2170-02	.0000	1.350	9.690	527.7
17	3.0000	.25100-01	152.00	.1000+00	.1210	.0000	.2043-02	.2463-02	.0000	1.531	11.38	528.5
17	3.0000	.28600-01	153.00	.9000-01	.1080	.0000	.1832-02	.2209-02	.0000	1.371	11.32	529.0
17	3.0000	.35400-01	155.00	.8300-01	.1000+00	.0000	.1695-02	.2043-02	.0000	1.270	10.18	528.3
17	3.0000	.38700-01	156.00	.7700-01	.9300-01	.0000	.1568-02	.1890-02	.0000	1.176	9.540	527.5
17	3.0000	.42000-01	157.00	.7500-01	.9000-01	.0000	.1521-02	.1833-02	.0000	1.141	9.350	527.8
17	3.0000	.46200-01	158.00	.7500-01	.9000-01	.0000	.1529-02	.1844-02	.0000	1.147	9.400	527.8
17	3.0000	.50300-01	159.00	.6800-01	.8100-01	.0000	.1378-02	.1662-02	.0000	1.033	9.280	528.1
17	3.0000	.55500-01	160.00	.1900-01	.2300-01	.0000	.3841-03	.4627-03	.0000	.2890	2.760	526.1
18	4.0000	.25000-01	296.00	.1340	.1620	.0000	.2742-02	.3316-02	.0000	2.023	15.48	537.9
18	4.0000	.50000-01	297.00	.9800-01	.1180	.0000	.2001-02	.2416-02	.0000	1.485	12.41	533.6
18	4.0000	.75000-01	298.00	.7400-01	.8900-01	.0000	.1507-02	.1821-02	.0000	1.117	9.260	534.7
18	4.0000	.10000+00	299.00	.6200-01	.7500-01	.0000	.1275-02	.1540-02	.0000	.9470	7.630	533.5
18	4.0000	.12500	300.00	.4900-01	.5900-01	.0000	.9972-03	.1204-02	.0000	.7420	6.600	531.7
18	4.0000	.15000	301.00	.5200-01	.6300-01	.0000	.1066-02	.1287-02	.0000	.7930	6.350	531.9
18	4.0000	.20000	303.00	.4800-01	.5700-01	.0000	.9695-03	.1169-02	.0000	.7240	5.800	529.3
18	4.0000	.22500	304.00	.2500-01	.3000-01	.0000	.5008-03	.6038-03	.0000	.3750	4.110	527.5
18	4.0000	.25000	305.00	.1400-01	.1700-01	.0000	.2888-03	.3478-03	.0000	.2170	1.730	523.3
18	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.2005-04	.2413-04	.0000	.1500-01	.1400	521.3
18	5.0000	.20000	311.00	.2700-01	.3200-01	.0000	.5429-03	.6536-03	.0000	.4090	4.000	522.5
18	5.0000	.22500	312.00	.2400-01	.2900-01	.0000	.4990-03	.6007-03	.0000	.3760	3.390	522.1
18	5.0000	.25000	313.00	.2000-01	.2400-01	.0000	.4065-03	.4891-03	.0000	.3070	2.340	520.0
18	5.0000	.27500	314.00	.2600-01	.3200-01	.0000	.5373-03	.6467-03	.0000	.4050	3.270	521.7
18	5.0000	.30000	315.00	.2600-01	.3100-01	.0000	.5245-03	.6312-03	.0000	.3960	2.890	521.4
18	5.0000	.32500	316.00	.1400-01	.1700-01	.0000	.2913-03	.3506-03	.0000	.2200	1.780	521.1
18	5.0000	.35000	317.00	.3000-02	.3000-02	.0000	.5390-04	.6485-04	.0000	.4100-01	.3000	520.2
18	5.0000	.37500	318.00	.3000-02	.4000-02	.0000	.6277-04	.7552-04	.0000	.4700-01	.3500	520.0
18	5.0000	.40000	319.00	.2000-02	.2000-02	.0000	.3178-04	.3823-04	.0000	.2400-01	.2000	519.4
18	5.0000	.47500	322.00	.2000-02	.2000-02	.0000	.4010-04	.4821-04	.0000	.3000-01	.2600	517.0
18	6.0000	.20000	323.00	.2700-01	.3200-01	.0000	.5501-03	.6626-03	.0000	.4130	3.590	524.2
18	6.0000	.22500	324.00	.1900-01	.2300-01	.0000	.3940-03	.4745-03	.0000	.2960	2.490	523.5
18	6.0000	.27500	326.00	.1600-01	.1900-01	.0000	.3214-03	.3868-03	.0000	.2430	2.100	520.8
18	6.0000	.30000	327.00	.2700-01	.3300-01	.0000	.5580-03	.6717-03	.0000	.4200	3.310	522.2
18	6.0000	.32500	328.00	.3000-01	.3600-01	.0000	.6131-03	.7384-03	.0000	.4610	4.170	524.0
18	6.0000	.35000	329.00	.1800-01	.2200-01	.0000	.3759-03	.4524-03	.0000	.2830	2.090	521.5
18	6.0000	.37500	330.00	.1900-01	.2200-01	.0000	.3779-03	.4550-03	.0000	.2840	2.270	523.1
18	6.0000	.40000	331.00	.9000-02	.1100-01	.0000	.1836-03	.2209-03	.0000	.1390	1.160	520.8
18	6.0000	.42500	332.00	.5000-02	.6000-02	.0000	.1058-03	.1272-03	.0000	.8000-01	.6500	518.9
18	6.0000	.45000	333.00	.7000-02	.8000-02	.0000	.1337-03	.1607-03	.0000	.1010	.8400	517.3
18	7.0000	.22500	334.00	.2400-01	.2900-01	.0000	.4893-03	.5891-03	.0000	.3680	3.250	522.8

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
18	7.0000	.25000	335.00	.1600-01	.2000-01	.0000	.3313-03	.3988-03	.0000	.2500	1.950	521.6
18	7.0000	.27500	336.00	.1700-01	.2000-01	.0000	.3425-03	.4121-03	.0000	.2590	2.230	520.3
18	7.0000	.30000	337.00	.1400-01	.1700-01	.0000	.2955-03	.3555-03	.0000	.2230	1.630	520.2
18	7.0000	.32500	338.00	.2400-01	.2900-01	.0000	.4945-03	.5953-03	.0000	.3730	3.120	522.1
18	7.0000	.35000	339.00	.3000-01	.3600-01	.0000	.6122-03	.7370-03	.0000	.4610	3.440	522.3
18	7.0000	.40000	341.00	.2700-01	.3300-01	.0000	.5565-03	.6700-03	.0000	.4190	3.380	523.0
18	7.0000	.45000	343.00	.1300-01	.1600-01	.0000	.2675-03	.3220-03	.0000	.2020	1.650	521.5
18	8.0000	.50000-01	351.00	.8500-01	.1030	.0000	.1738-02	.2098-02	.0000	1.293	10.69	532.0
18	8.0000	.75000-01	352.00	.4700-01	.5600-01	.0000	.9523-03	.1147-02	.0000	.7140	5.970	525.8
18	8.0000	.12500	354.00	.3900-01	.4700-01	.0000	.7960-03	.9591-03	.0000	.5970	5.010	525.5
18	8.0000	.15000	355.00	.3100-01	.3700-01	.0000	.6307-03	.7599-03	.0000	.4730	3.900	525.4
18	8.0000	.17500	356.00	.3700-01	.4400-01	.0000	.7455-03	.8984-03	.0000	.5590	4.040	525.9
18	8.0000	.20000	357.00	.2600-01	.3200-01	.0000	.5345-03	.6441-03	.0000	.4010	3.440	526.1
19	9.0000	.61900-01	161.00	.1000-01	.1300-01	.0000	.2128-03	.2560-03	.0000	.1610	1.370	518.9
19	9.0000	.70900-01	162.00	.1100-01	.1300-01	.0000	.2278-03	.2741-03	.0000	.1720	1.830	519.5
19	9.0000	.80700-01	163.00	.1500-01	.1700-01	.0000	.2969-03	.3571-03	.0000	.2250	1.840	518.8
19	9.0000	.94300-01	164.00	.2400-01	.2900-01	.0000	.4852-03	.5836-03	.0000	.3670	2.840	519.1
19	9.0000	.97800-01	165.00	.2000-01	.2400-01	.0000	.4001-03	.4813-03	.0000	.3030	2.420	519.5
19	9.0000	.10130	166.00	.1900-01	.2300-01	.0000	.3832-03	.4610-03	.0000	.2900	2.280	519.2
19	10.000	.61900-01	167.00	.7000-02	.8000-02	.0000	.1356-03	.1630-03	.0000	.1030	.7700	517.0
19	10.000	.70900-01	168.00	.8000-02	.9000-02	.0000	.1599-03	.1922-03	.0000	.1210	1.170	517.2
19	10.000	.80700-01	169.00	.9000-02	.1000-01	.0000	.1753-03	.2108-03	.0000	.1330	1.110	516.7
19	10.000	.94300-01	170.00	.1500-01	.1800-01	.0000	.3132-03	.3767-03	.0000	.2370	1.910	519.0
19	10.000	.97800-01	171.00	.1400-01	.1700-01	.0000	.2818-03	.3389-03	.0000	.2130	1.780	518.4
19	10.000	.10130	172.00	.1300-01	.1500-01	.0000	.2574-03	.3096-03	.0000	.1950	1.510	518.3
19	11.000	.80700-01	173.00	.3000-02	.3000-02	.0000	.5302-04	.6372-04	.0000	.4000-01	.3000	516.2
19	11.000	.94300-01	174.00	.4000-02	.5000-02	.0000	.7736-04	.9299-04	.0000	.5900-01	.5200	516.4
19	11.000	.97800-01	175.00	.5000-02	.7000-02	.0000	.1109-03	.1333-03	.0000	.8400-01	.5900	516.3
19	11.000	.10130	176.00	.6000-02	.7000-02	.0000	.1132-03	.1361-03	.0000	.8600-01	.6400	516.5

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
68	7.930	42.49	90.72	1177.	86.70	.9840-02	.4330	3619.	.3064-03	.6974-07	.4940	.1055-01
69	7.930	42.49	85.81	1172.	86.30	.9310-02	.4100	3611.	.2910-03	.6944-07	.4700	.1025-01
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
68	.3853-01
69	.3951-01
70	.3953-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
69	1.0000	.00000	367.00	.3950	.4840	.0000	.4051-02	.4965-02	.0000	2.578	21.93	535.4
69	1.0000	.80000-03	368.00	.2550	.3120	.0000	.2613-02	.3194-02	.0000	1.681	13.30	528.1
69	1.0000	.19000-02	369.00	.1210	.1470	.0000	.1238-02	.1512-02	.0000	.8020	6.890	524.2
69	1.0000	.37000-02	370.00	.7900-01	.9600-01	.0000	.8068-03	.9840-03	.0000	.5250	4.330	521.0
69	1.0000	.87000-02	372.00	.3900-01	.4800-01	.0000	.4026-03	.4908-03	.0000	.2620	2.210	519.9
69	1.0000	.11800-01	373.00	.2700-01	.3300-01	.0000	.2740-03	.3340-03	.0000	.1790	1.380	519.1
69	1.0000	.15100-01	374.00	.2000-01	.2500-01	.0000	.2087-03	.2544-03	.0000	.1360	1.050	519.1
69	1.0000	.18200-01	375.00	.1900-01	.2300-01	.0000	.1927-03	.2348-03	.0000	.1260	.9300	519.2
69	1.0000	.21500-01	376.00	.1300-01	1600-01	.0000	.1370-03	.1670-03	.0000	.9000-01	.6800	518.6
69	1.0000	.24600-01	377.00	.1400-01	.1700-01	.0000	.1446-03	.1762-03	.0000	.9400-01	.7400	518.2
69	1.0000	.27800-01	378.00	.1100-01	.1300-01	.0000	.1130-03	.1377-03	.0000	.7400-01	.6400	518.7
69	1.0000	.60900-01	379.00	.1200-01	.1500-01	.0000	.1258-03	.1532-03	.0000	.8200-01	.6700	518.6
69	1.0000	.64600-01	380.00	.9000-02	.1100-01	.0000	.9323-04	.1136-03	.0000	.6100-01	.6000	517.9
69	1.0000	.68400-01	381.00	.1100-01	.1400-01	.0000	.1165-03	.1420-03	.0000	.7600-01	.5900	518.0
69	1.0000	.72100-01	382.00	.1100-01	.1300-01	.0000	.1082-03	.1318-03	.0000	.7100-01	.5400	518.1
69	1.0000	.79100-01	384.00	.1100-01	.1300-01	.0000	.1122-03	.1368-03	.0000	.7300-01	.5300	518.0
69	1.0000	.94300-01	385.00	.1400-01	.1700-01	.0000	.1428-03	.1740-03	.0000	.9300-01	.7300	517.4
69	1.0000	.97800-01	386.00	.1500-01	.1800-01	.0000	.1495-03	.1822-03	.0000	.9800-01	.8300	518.0

OH103A.AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA11)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
69	1.0000	.10190	387.00	.1600-01	.2000-01	.0000	.1661-03	.2024-03	.0000	.1090	.8900	518.5
69	1.0000	.11600	388.00	.1900-01	.2400-01	.0000	.1979-03	.2412-03	.0000	.1290	1.370	518.7
69	1.0000	.11950	389.00	.2500-01	.3100-01	.0000	.2594-03	.3161-03	.0000	.1700	1.180	518.2
69	1.0000	.12680	391.00	.2300-01	.2800-01	.0000	.2354-03	.2868-03	.0000	.1540	.9700	518.0
69	1.0000	.13050	392.00	.2400-01	.3000-01	.0000	.2505-03	.3052-03	.0000	.1640	.9600	517.7
69	1.0000	.13380	393.00	.2500-01	.3100-01	.0000	.2607-03	.3177-03	.0000	.1700	1.010	518.1
69	1.0000	.13760	394.00	.3200-01	.3900-01	.0000	.3284-03	.4001-03	.0000	.2150	1.290	517.9
69	1.0000	.14140	395.00	.2300-01	.2800-01	.0000	.2393-03	.2915-03	.0000	.1560	1.050	517.7
69	1.0000	.14480	396.00	.2500-01	.3000-01	.0600	.2544-03	.3099-03	.0000	.1660	1.130	517.5
69	1.0000	.14830	397.00	.2500-01	.3000-01	.0000	.2559-03	.3117-03	.0000	.1670	1.140	517.9
69	1.0000	.15190	398.00	.2700-01	.3300-01	.0000	.2816-03	.3430-03	.0000	.1840	1.320	518.0
69	1.0000	.15560	399.00	.2800-01	.3400-01	.0000	.2821-03	.3437-03	.0000	.1840	1.390	517.8
69	1.0000	.15820	400.00	.8700-01	.1070	.0000	.8965-03	.1093-02	.0000	.5830	4.350	520.9
69	1.0000	.16080	401.00	.9400-01	.1150	.0000	.9626-03	.1175-02	.0000	.6250	4.850	522.5
69	1.0000	.16350	402.00	.9500-01	.1160	.0000	.9731-03	.1188-02	.0000	.6310	5.090	523.1
69	1.0000	.16640	403.00	.9600-01	.1180	.0000	.9881-03	.1205-02	.0000	.6420	5.320	522.1
69	2.0000	.00000	367.00	.3950	.4840	.0000	.4051-02	.4965-02	.0000	2.578	21.93	535.4
68	2.0000	.10000-02	273.00	.5200	.6380	.5420	.5481-02	.6734-02	.5721-02	3.485	28.69	544.4
68	2.0000	.18000-02	274.00	.5350	.6570	.5480	.5641-02	.6933-02	.5786-02	3.563	29.16	545.1
68	2.0000	.41000-02	275.00	.5450	.6710	.5470	.5754-02	.7079-02	.5770-02	3.617	29.03	548.1
68	2.0000	.70000-02	276.00	.5490	.6750	.5500	.5791-02	.7121-02	.5801-02	3.648	28.98	546.8
68	2.0000	.10300-01	277.00	.5170	.6350	.5190	.5450-02	.6702-02	.5476-02	3.433	27.37	546.8
68	2.0000	.15100-01	278.00	.5670	.6970	.5730	.5987-02	.7357-02	.6046-02	3.782	29.76	544.9
68	2.0000	.19900-01	279.00	.3680	.4520	.3750	.3682-02	.4765-02	.3951-02	2.465	23.69	541.8
68	2.0000	.23200-01	280.00	.1290	.1580	.1320	.1365-02	.1668-02	.1395-02	.8840	9.450	529.2
68	2.0000	.26300-01	281.00	.3330	.4090	.3420	.3510-02	.4310-02	.3604-02	2.225	26.10	542.8
68	2.0000	.29900-01	282.00	.3430	.4210	.3540	.3622-02	.4444-02	.3733-02	2.304	22.35	540.7
68	2.0000	.33800-01	283.00	.3030	.3720	.3150	.3201-02	.3924-02	.3321-02	2.046	19.80	537.5
68	2.0000	.38100-01	284.00	.2840	.3480	.2960	.2997-02	.3671-02	.3127-02	1.920	18.68	536.0
68	2.0000	.41400-01	285.00	.2720	.3330	.2850	.2865-02	.3509-02	.3002-02	1.836	17.86	535.8
68	2.0000	.45200-01	286.00	.2700	.3310	.2850	.2851-02	.3489-02	.3007-02	1.835	17.13	533.2
68	2.0000	.50300-01	287.00	.2500	.3070	.2660	.2641-02	.3235-02	.2804-02	1.692	16.46	535.9
68	2.0000	.15000	289.00	.1420	.1740	.1570	.1502-02	.1834-02	.1659-02	.9740	7.290	528.1
68	2.0000	.20000	290.00	.1230	.1500	.1370	.1295-02	.1584-02	.1440-02	.8360	7.210	531.0
68	2.0000	.25000	291.00	.1140	.1390	.1270	.1198-02	.1465-02	.1341-02	.7740	6.360	530.8
68	2.0000	.30000	292.00	.9000-01	.1100	.1010	.9506-03	.1162-02	.1064-02	.6150	5.020	529.5
68	2.0000	.35000	293.00	.1130	.1380	.1260	.1190-02	.1458-02	.1334-02	.7620	6.530	536.2
68	2.0000	.40000	294.00	.1040	.1280	.1170	.1100-02	.1347-02	.1232-02	.7050	5.710	535.6
68	2.0000	.45000	295.00	.9700-01	.1190	.1090	.1028-02	.1259-02	.1152-02	.6600	5.060	534.5
69	3.0000	.00000	367.00	.3950	.4840	.0000	.4051-02	.4965-02	.0000	2.578	21.93	535.4
68	3.0000	.80000-03	145.00	.3140	.3840	.0000	.3312-02	.4055-02	.0000	2.127	15.87	534.5
68	3.0000	.23000-02	146.00	.3070	.3760	.0000	.3243-02	.3971-02	.0000	2.081	15.22	534.9
68	3.0000	.43000-02	147.00	.2350	.2870	.0000	.2479-02	.3032-02	.0000	1.598	11.94	531.9

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
68	3.0000	.68000-02	148.00	.1900	.2320	.0000	.2006-02	.2451-02	.0000	1.299	9.400	529.1
68	3.0000	.95000-02	149.00	.1550	.1890	.0000	.1637-02	.1999-02	.0000	1.062	7.410	527.8
68	3.0000	.12200-01	150.00	.1570	.1920	.0000	.1656-02	.2023-02	.0000	1.075	7.570	527.9
68	3.0000	.21800-01	151.00	.8900-01	.1090	.0000	.9413-03	.1148-02	.0000	.6140	4.410	524.4
68	3.0000	.25100-01	152.00	.9900-01	.1210	.0000	.1044-02	.1274-02	.0000	.6810	5.080	524.2
68	3.0000	.28600-01	153.00	.9000-01	.1100	.0000	.9475-03	.1156-02	.0000	.6180	5.110	524.2
68	3.0000	.35400-01	155.00	.8300-01	.1020	.0000	.8797-03	.1073-02	.0000	.5740	4.620	523.8
68	3.0000	.38700-01	156.00	.7800-01	.9500-01	.0000	.8213-03	.1002-02	.0000	.5370	4.360	523.3
68	3.0000	.42000-01	157.00	.7700-01	.9400-01	.0000	.8093-03	.9870-03	.0000	.5290	4.340	523.3
68	3.0000	.46200-01	158.00	.8100-01	.9900-01	.0000	.8597-03	.1048-02	.0000	.5620	4.620	523.1
68	3.0000	.50300-01	159.00	.6800-01	.8300-01	.0000	.7217-03	.8802-03	.0000	.4720	4.250	523.3
69	4.0000	.50000-01	297.00	.9900-01	.1210	.0000	.1015-02	.1239-02	.0000	.6570	5.510	524.7
69	4.0000	.75000-01	298.00	.7400-01	.9000-01	.0000	.7545-03	.9216-03	.0000	.4880	4.060	525.3
69	4.0000	.10000+00	299.00	.6200-01	.7600-01	.0000	.6386-03	.7797-03	.0000	.4130	3.350	524.3
69	4.0000	.12500	300.00	.4900-01	.6000-01	.0000	.5065-03	.6183-03	.0000	.3280	2.930	523.6
69	4 0000	.15000	301.00	.5100-01	.6300-01	.0000	.5251-03	.6409-03	.0000	.3400	2.740	523.7
69	4.0000	.20000	303.00	.4600-01	.5600-01	.0000	.4699-03	.5737-03	.0000	.3040	2.450	523.8
69	4.0000	.22500	304.00	.2300-01	.2800-01	.0000	.2373-03	.2897-03	.0000	.1540	1.690	523.3
69	4.0000	.25000	305.00	.1200-01	.1500-01	.0000	.1230-03	.1500-03	.0000	.8000-01	.6400	521.0
69	4.0000	.32500	307.00	.1000-02	.1000-02	.0000	.9389-05	.1145-04	.0000	.6000-02	.6000-01	519.7
69	4.0000	.37500	308.00	.1000-02	.1000-02	.0000	.1041-04	.1269-04	.0000	.7000-02	.5000-01	519.9
69	4.0000	.42500	309.00	.3000-02	.3000-02	.0000	.2675-04	.3260-04	.0000	.1700-01	.1300	518.9
69	5.0000	.20000	311.00	.2500-01	.3100-01	.0000	.2566-03	.3128-03	.0000	.1670	1.640	519.8
69	5.0000	.22500	312.00	.2200-01	.2600-01	.0000	.2209-03	.2692-03	.0000	.1440	1.300	519.1
69	5.0000	.25000	313.00	.1800-01	.2200-01	.0000	.1820-03	.2218-03	.0000	.1190	.9100	518.8
69	5.0000	.27500	314.00	.2300-01	.2800-01	.0000	.2330-03	.2839-03	.0000	.1520	1.230	519.0
69	5.0000	.30000	315.00	.1700-01	.2100-01	.0000	.1759-03	.2144-03	.0000	.1150	.8400	518.7
69	5.0000	.32500	316.00	.1000-01	.1200-01	.0000	.9983-04	.1217-03	.0000	.6500-01	.5300	518.5
69	5.0000	.35000	317.00	.1400-01	.1700-01	.0000	.1409-03	.1717-03	.0000	.9200-01	.6700	518.1
69	5.0000	.37500	318.00	.4000-02	.5000-02	.0000	.4352-04	.5303-04	.0000	.2800-01	.2100	518.2
69	5.0000	.40000	319.00	.2000-02	.3000-02	.0000	.2551-04	.3108-04	.0000	.1700-01	.1400	518.0
69	5.0000	.47500	322.00	.1000-02	.1000-02	.0000	.1174-04	.1429-04	.0000	.8000-02	.7000-01	517.0
69	6.0000	.20000	323.00	.2300-01	.2800-01	.0000	.2341-03	.2854-03	.0000	.1520	1.330	520.4
69	6.0000	.22500	324.00	.3300-01	.4000-01	.0000	.3374-03	.4114-03	.0000	.2200	1.850	519.9
69	6.0000	.27500	326.00	.1600-01	.1900-01	.0000	.1601-03	.1952-03	.0000	.1050	.9000	519.0
69	6.0000	.30000	327.00	.2200-01	.2700-01	.0000	.2258-03	.2752-03	.0000	.1470	1.160	519.0
69	6.0000	.32500	328.00	.2300-01	.2800-01	.0000	.2324-03	.2833-03	.0000	.1520	1.370	519.5
69	6.0000	.35000	329.00	.1500-01	.1800-01	.0000	.1517-03	.1849-03	.0000	.9900-01	.7300	519.2
69	6.0000	.37500	330.00	.1100-01	.1400-01	.0000	.1171-03	.1427-03	.0000	.7600-01	.6100	518.8
69	6.0000	.40000	331.00	.6000-02	.7000-02	.0000	.6187-04	.7539-04	.0000	.4000-01	.3400	517.9
69	6.0000	.42500	332.00	.5000-02	.6000-02	.0000	.4988-04	.6075-04	.0000	.3300-01	.2700	517.0
69	7.0000	.22500	334.00	.2200-01	.2600-01	.0000	.2205-03	.2688-03	.0000	.1440	1.270	519.4
69	7.0000	.25000	335.00	.3000-02	.4000-02	.0000	.3077-04	.3750-04	.0000	.2000-01	.1600	518.5

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA11)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
69	7.0000	.27500	336.00	.7000-02	.8000-02	.0000	.6815-04	.8303-04	.0000	.4500-01	.3800	517.8
69	7.0000	.30000	337.00	.1500-01	.1800-01	.0000	.1529-03	.1862-03	.0000	.1000+00	.7300	517.4
69	7.0000	.32500	338.00	.2300-01	.2800-01	.0000	.2365-03	.2881-03	.0000	.1540	1.300	518.4
69	7.0000	.35000	339.00	.2500-01	.3000-01	.0000	.2534-03	.3088-03	.0000	.1660	1.240	518.2
69	7.0000	.40000	341.00	.1300-01	.1500-01	.0000	.1291-03	.1574-03	.0000	.8400-01	.6800	518.7
69	7.0000	.45000	343.00	.7000-02	.9000-02	.0000	.7459-04	.9086-04	.0000	.4900-01	.4000	517.5
69	8.0000	.50000-01	351.00	.6600-01	.8100-01	.0000	.6796-03	.8300-03	.0000	.4390	3.650	525.1
69	8.0000	.75000-01	352.00	.4700-01	.5800-01	.0000	.4855-03	.5923-03	.0000	.3150	2.640	521.9
69	8.0000	.12500	354.00	.3300-01	.4000-01	.0000	.3344-03	.4080-03	.0000	.2170	1.830	521.6
69	8.0000	.15000	355.00	.2900-01	.3500-01	.0000	.2930-03	.3575-03	.0000	.1900	1.570	521.6
69	8.0000	.17500	356.00	.3200-01	.3900-01	.0000	.3261-03	.3977-03	.0000	.2120	1.540	521.3
69	8.0000	.20000	357.00	.2700-01	.3300-01	.0000	.2777-03	.3387-03	.0000	.1810	1.550	521.0
70	9.0000	.61900-01	161.00	.9000-02	.1100-01	.0000	.9224-04	.1124-03	.0000	.6000-01	.5100	518.2
70	9.0000	.70900-01	162.00	.9000-02	.1200-01	.0000	.9670-04	.1179-03	.0000	.6300-01	.6700	518.6
70	9.0000	.80700-01	163.00	.1000-01	.1300-01	.0000	.1057-03	.1288-03	.0000	.6900-01	.5700	517.4
70	9.0000	.94300-01	164.00	.1500-01	.1900-01	.0000	.1570-03	.1913-03	.0000	.1020	.7900	518.2
70	9.0000	.97800-01	165.00	.1300-01	.1600-01	.0000	.1329-03	.1620-03	.0000	.8700-01	.6900	518.5
70	9.0000	.10130	166.00	.1300-01	.1600-01	.0000	.1360-03	.1658-03	.0000	.8900-01	.7000	518.3
70	10.000	.61900-01	167.00	.7000-02	.8000-02	.0000	.6930-04	.8441-04	.0000	.4500-01	.3400	517.1
70	10.000	.70900-01	168.00	.6000-02	.8000-02	.0000	.6377-04	.7769-04	.0000	.4200-01	.4000	517.1
70	10.000	.80700-01	169.00	.6000-02	.8000-02	.0000	.6407-04	.7805-04	.0000	.4200-01	.3500	517.1
70	10.000	.94300-01	170.00	.1000-01	.1200-01	.0000	.1014-03	.1235-03	.0000	.6600-01	.5300	518.2
70	10.000	.97800-01	171.00	.1000-01	.1200-01	.0000	.1048-03	.1277-03	.0000	.6800-01	.5700	518.2
70	10.000	.10130	172.00	.9000-02	.1100-01	.0000	.9637-04	.1174-03	.0000	.6300-01	.4900	518.1
70	11.000	.97800-01	175.00	.5000-02	.6000-02	.0000	.4819-04	.5871-04	.0000	.3100-01	.2200	517.3
70	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.5037-04	.6137-04	.0000	.3300-01	.2400	517.4

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
66	7.970	42.51	166.1	1226.	89.40	.1740-01	.7750	3695.	.5261-03	.7197-07	.8390	.1421-01
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
66	.2953-01
67	.2930-01

TEST DATA

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
66	2.0000	.10000-02	273.00	.5200	.6350	.5420	.7393-02	.9029-02	.7708-02	5.002	41.32	549.1
66	2.0000	.18000-02	274.00	.5400	.6590	.5530	.7670-02	.9370-02	.7862-02	5.180	42.29	550.3
66	2.0000	.41000-02	275.00	.5520	.6760	.5540	.7851-02	.9606-02	.7873-02	5.266	42.12	554.9
66	2.0000	.70000-02	276.00	.5460	.6680	.5470	.7767-02	.9498-02	.7780-02	5.221	41.35	553.4
66	2.0000	.10300-01	277.00	.5170	.6330	.5200	.7353-02	.8994-02	.7387-02	4.939	39.24	554.0
66	2.0000	.15100-01	278.00	.5600	.6850	.5660	.7963-02	.9732-02	.8040-02	5.370	42.12	551.3
66	2.0000	.19900-01	279.00	.3690	.4510	.3760	.5246-02	.6411-02	.5337-02	3.539	33.87	551.0
66	2.0000	.23200-01	280.00	.1250	.1510	.1270	.1771-02	.2151-02	.1809-02	1.230	13.13	531.3
66	2.0000	.26300-01	281.00	.3280	.4010	.3370	.4662-02	.5696-02	.4784-02	3.147	36.77	550.7
66	2.0000	.29900-01	282.00	.3390	.4140	.3490	.4814-02	.5881-02	.4958-02	3.252	31.40	550.2
66	2.0000	.33800-01	283.00	.2980	.3630	.3090	.4235-02	.5166-02	.4389-02	2.879	27.74	545.7
66	2.0000	.38100-01	284.00	.2770	.3370	.2880	.3933-02	.4795-02	.4099-02	2.681	25.97	544.0
66	2.0000	.41400-01	285.00	.2650	.3230	.2780	.3769-02	.4595-02	.3946-02	2.569	24.89	543.9
66	2.0000	.45200-01	286.00	.2630	.3210	.2770	.3741-02	.4557-02	.3941-02	2.562	23.82	540.8
66	2.0000	.50300-01	287.00	.2470	.3010	.2620	.3511-02	.4279-02	.3723-02	2.395	23.21	543.4
66	2.0000	.15000	289.00	.1380	.1680	.1520	.1965-02	.2389-02	.2165-02	1.357	10.12	535.0
66	2.0000	.20000	290.00	.1200	.1460	.1330	.1704-02	.2075-02	.1891-02	1.169	10.04	539.6
66	2.0000	.25000	291.00	.1080	.1320	.1210	.1541-02	.1877-02	.1721-02	1.055	8.620	541.1
66	2.0000	.30000	292.00	.8500-01	.1040	.9500-01	.1208-02	.1472-02	.1349-02	.8270	6.710	540.9
66	2.0000	.35000	293.00	.1100	.1340	.1230	.1559-02	.1905-02	.1744-02	1.050	8.930	552.0

OH103A,AEDC V418-V2, ORB FUS (LONG RADIANS) (R4HA11)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
66	2.0000	.40000	294.00	.1000+00	.1220	.1120	.1419-02	.1735-02	.1589-02	.9560	7.680	552.4
66	2.0000	.45000	295.00	.9300-01	.1140	.1050	.1329-02	.1623-02	.1486-02	.8980	6.840	549.5
66	3.0000	.80000-03	145.00	.2790	.3400	.0000	.3973-02	.4828-02	.0000	2.747	20.50	534.2
66	3.0000	.23000-02	146.00	.3030	.3680	.0000	.4301-02	.5229-02	.0000	2.969	21.71	535.4
66	3.0000	.43000-02	147.00	.2320	.2810	.0000	.3291-02	.3997-02	.0000	2.286	17.08	531.2
66	3.0000	.68000-02	148.00	.1890	.2300	.0000	.2693-02	.3266-02	.0000	1.879	13.62	527.7
66	3.0000	.95000-02	149.00	.1550	.1880	.0000	.2200-02	.2666-02	.0000	1.543	10.78	524.4
66	3.0000	.12200-01	150.00	.1470	.1780	.0000	.2086-02	.2528-02	.0000	1.462	10.31	524.9
66	3.0000	.21800-01	151.00	.9200-01	.1110	.0000	.1309-02	.1585-02	.0000	.9220	6.640	521.3
66	3.0000	.25100-01	152.00	.9900-01	.1180	.0000	.1386-02	.1678-02	.0000	.9760	7.280	521.5
66	3.0000	.28600-01	153.00	.8700-01	.1050	.0000	.1232-02	.1492-02	.0000	.8670	7.190	521.6
66	3.0000	.35400-01	155.00	.7800-01	.9400-01	.0000	.1102-02	.1334-02	.0000	.7770	6.260	520.6
66	3.0000	.38700-01	156.00	.7400-01	.8900-01	.0000	.1045-02	.1265-02	.0000	.7370	6.000	520.4
66	3.0000	.42000-01	157.00	.7200-01	.8700-01	.0000	.1026-02	.1242-02	.0000	.7240	5.950	520.5
66	3.0000	.46200-01	158.00	.7300-01	.8800-01	.0000	.1031-02	.1248-02	.0000	.7270	5.980	520.5
66	3.0000	.50300-01	159.00	.7200-01	.8800-01	.0000	.1029-02	.1246-02	.0000	.7260	6.540	520.7
67	9.0000	.61900-01	161.00	.9000-02	.1000-01	.0000	.1226-03	.1481-03	.0000	.8700-01	.7500	513.4
67	9.0000	.70900-01	162.00	.1000-01	.1200-01	.0000	.410-03	.1703-03	.0000	.1000+00	1.070	513.1
67	9.0000	.80700-01	163.00	.1200-01	.1400-01	.0000	.1683-03	.2032-03	.0000	.1200	.9900	512.0
67	9.0000	.94300-01	164.00	.1900-01	.2300-01	.0000	.2716-03	.3280-03	.0000	.1940	1.500	513.2
67	9.0000	.97800-01	165.00	.1600-01	.1900-01	.0000	.2220-03	.2682-03	.0000	.1580	1.270	513.9
67	9.0000	.10130	166.00	.1600-01	.2000-01	.0000	.2335-03	.2821-03	.0000	.1660	1.310	513.7
67	10.000	.61900-01	167.00	.6000-02	.7000-02	.0000	.8623-04	.1041-03	.0000	.6200-01	.4600	511.6
67	10.000	.70900-01	168.00	.6000-02	.7000-02	.0000	.8418-04	.1016-03	.0000	.6000-01	.5800	511.9
67	10.000	.80700-01	169.00	.6000-02	.7000-02	.0000	.8543-04	.1031-03	.0000	.6100-01	.5100	511.8
67	10.000	.94300-01	170.00	.1200-01	.1400-01	.0000	.1692-03	.2044-03	.0000	.1210	.9700	513.0
67	10.000	.97800-01	171.00	.1200-01	.1400-01	.0000	.1689-03	.2040-03	.0000	.1200	1.010	513.0
67	10.000	.10130	172.00	.1100-01	.1300-01	.0000	.1532-03	.1851-03	.0000	.1090	.8500	513.5
67	11.000	.80700-01	173.00	.2000-02	.2000-02	.0000	.2875-04	.3471-04	.0000	.2100-01	.1600	511.8
67	11.000	.94300-01	174.00	.3000-02	.3000-02	.0000	.3833-04	.4628-04	.0000	.2700-01	.2400	512.0
67	11.000	.97800-01	175.00	.4000-02	.5000-02	.0000	.6125-04	.7395-04	.0000	.4400-01	.3100	512.0
67	11.000	.10130	176.00	.5000-02	.6000-02	.0000	.6751-04	.8152-04	.0000	.4800-01	.3600	512.2

DATE 07 DEC 78

OH103A ORBITER MODEL 83-0 HEATING DATA

OH103A.AEDC V418-V2. ORB FUS (LONG RADIANS)

ORB FUS (LONG DIM)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
74	7.970	42.53	333.8	1275.	93.00	.3500-01	1.558	3766.	.1017-02	.7485-07	1.590	.2029-01

RUN NUMBER	STN NO REF(R) *.040
74	.2133-01

•••TEST DATA•••

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
74	2.0000	.10000-02	273.00	.5070	.6200	.5280	.1028-01	.1257-01	.1072-01	7.189	58.62	575.2
74	2.0000	.18000-02	274.00	.5300	.6480	.5430	.1075-01	.1315-01	.1102-01	7.492	60.35	577.4
74	2.0000	.41000-02	275.00	.5380	.6600	.5390	.1091-01	.1338-01	.1094-01	7.527	59.32	584.7
74	2.0000	.70000-02	276.00	.5430	.6660	.5440	.1102-01	.1351-01	.1104-01	7.623	59.48	583.1
74	2.0000	.10300-01	277.00	.5150	.6320	.5170	.1045-01	.1281-01	.1050-01	7.215	56.46	584.2
74	2.0000	.15100-01	278.00	.5580	.6840	.5640	.1132-01	.1387-01	.1143-01	7.859	60.74	580.7
74	2.0000	.19900-01	279.00	.3640	.4450	.3700	.7378-02	.9031-02	.7507-02	5.139	48.51	578.2
74	2.0000	.23200-01	280.00	.1210	.1470	.1240	.2462-02	.2980-02	.2512-02	1.804	19.16	541.8
74	2.0000	.26300-01	281.00	.3230	.3950	.3310	.6544-02	.8018-02	.6717-02	4.537	52.21	581.3
74	2.0000	.29900-01	282.00	.3370	.4120	.3470	.6828-02	.8353-02	.7033-02	4.765	45.41	576.7
74	2.0000	.33800-01	283.00	.2980	.3630	.3090	.6038-02	.7371-02	.6258-02	4.256	40.52	569.8
74	2.0000	.38100-01	284.00	.2800	.3410	.2920	.5674-02	.6921-02	.5914-02	4.017	38.47	566.8
74	2.0000	.41400-01	285.00	.2660	.3250	.2790	.5403-02	.6589-02	.5656-02	3.824	36.61	566.9
74	2.0000	.45200-01	286.00	.2650	.3220	.2790	.5366-02	.6536-02	.5651-02	3.822	35.15	562.4
74	2.0000	.50300-01	287.00	.2450	.2990	.2600	.4968-02	.6062-02	.5269-02	3.507	33.55	568.7
74	2.0000	.15000	289.00	.1410	.1710	.1550	.2854-02	.3463-02	.3142-02	2.068	15.31	550.0
74	2.0000	.20000	290.00	.1210	.1480	.1350	.2463-02	.2994-02	.2731-02	1.771	15.09	555.6
74	2.0000	.25000	291.00	.1140	.1380	.1270	.2305-02	.2803-02	.2572-02	1.653	13.40	557.5
74	2.0000	.30000	292.00	.8900-01	.1080	.9900-01	.1800-02	.2187-02	.2007-02	1.296	10.44	554.7
74	2.0000	.35000	293.00	.1190	.1450	.1330	.2405-02	.2939-02	.2691-02	1.688	14.20	572.9
74	2.0000	.40000	294.00	.1300	.1590	.1460	.2643-02	.3232-02	.2958-02	1.847	14.67	575.8
74	2.0000	.45000	295.00	.1790	.2190	.2000	.3623-02	.4436-02	.4057-02	2.519	18.89	579.2

OH103A,AEDC V41B-V2, ORB FUS (LONG RADIANS) (R4HA11)

RUN NUMBER	RADIAN	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H/HREF R= TAW/TO	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	H(TAW) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
74	3.0000	.80000-03	145.00	.2900	.3520	.0000	.5885-02	.7147-02	.0000	4.246	31.39	553.1
74	3.0000	.23000-02	146.00	.3020	.3670	.0000	.6130-02	.7445-02	.0000	4.423	32.06	553.1
74	3.0000	.43000-02	147.00	.2320	.2810	.0000	.4702-02	.5699-02	.0000	3.424	25.40	546.4
74	3.0000	.68000-02	148.00	.1870	.2260	.0000	.3785-02	.4580-02	.0000	2.780	20.02	540.1
74	3.0000	.95000-02	149.00	.1630	.1970	.0000	.3310-02	.3999-02	.0000	2.449	17.02	534.8
74	3.0000	.12200-01	150.00	.1470	.1780	.0000	.2996-02	.3610-02	.0000	2.200	15.41	537.7
74	3.0000	.21800-01	151.00	.8900-01	.1080	.0000	.1811-02	.2187-02	.0000	1.345	9.630	532.2
74	3.0000	.25100-01	152.00	.1030	.1240	.0000	.2089-02	.2523-02	.0000	1.550	11.50	532.9
74	3.0000	.28600-01	153.00	.8800-01	.1070	.0000	.1793-02	.2165-02	.0000	1.329	10.95	533.2
74	3.0000	.35400-01	155.00	.8300-01	.1000+00	.0000	.1675-02	.2022-02	.0000	1.244	9.960	532.0
74	3.0000	.38700-01	156.00	.7900-01	.9600-01	.0000	.1605-02	.1938-02	.0000	1.193	9.660	531.3
74	3.0000	.42000-01	157.00	.7700-01	.9300-01	.0000	.1555-02	.1877-02	.0000	1.156	9.460	531.3
74	3.0000	.46200-01	158.10	.7700-01	.9300-01	.0000	.1563-02	.1894-02	.0000	1.167	9.550	531.1
74	3.0000	.50300-01	159.00	.7100-01	.8600-01	.0000	.1446-02	.1746-02	.0000	1.075	9.650	531.1

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
20	7.880	24.99	86.58	1177.	87.70	.9780-02	.4250	3617.	.3011-03	.7056-07	.4800	.1045-01

RUN NUMBER	STN NO REF(R) =.040
20	.3887-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
20	.20000-01	348.50	501.00	.2650	.3250	.2768-02	.3394-02	1.766	17.93	538.7
20	.20000-01	338.20	502.00	.2570	.3160	.2692-02	.3298-02	1.722	18.34	536.8
20	.20000-01	328.70	503.00	.2970	.3650	.3110-02	.3812-02	1.986	17.75	538.0
20	.20000-01	320.50	504.00	.3230	.3960	.3377-02	.4135-02	2.168	17.33	534.8
20	.20000-01	312.30	505.00	.3240	.3960	.3382-02	.4144-02	2.165	17.93	536.5
20	.20000-01	303.50	506.00	.2970	.3640	.3106-02	.3804-02	1.991	17.82	535.4
20	.20000-01	296.50	507.00	.2610	.3200	.2729-02	.3345-02	1.744	18.56	537.7
20	.20000-01	287.00	508.00	.2250	.2750	.2349-02	.2878-02	1.504	17.70	536.5
20	.20000-01	278.60	509.00	.1980	.2420	.2069-02	.2531-02	1.334	13.00	532.0
20	.20000-01	270.00	510.00	.1710	.2090	.1788-02	.2186-02	1.155	11.26	530.9
20	.20000-01	262.00	511.00	.1700	.2080	.1779-02	.2175-02	1.150	9.920	530.4
20	.27000-01	350.00	426.00	.2320	.2840	.2420-02	.2967-02	1.545	16.76	538.3
20	.27000-01	343.00	427.00	.2450	.3010	.2566-02	.3145-02	1.640	16.74	537.6
20	.27000-01	335.00	428.00	.2390	.2920	.2494-02	.3052-02	1.605	15.18	533.0
20	.27000-01	324.00	429.00	.2490	.3050	.2601-02	.3185-02	1.670	14.43	534.8
20	.27000-01	320.00	430.00	.2960	.3630	.3098-02	.3794-02	1.989	15.95	534.9
20	.27000-01	310.00	431.00	.3390	.4160	.3548-02	.4349-02	2.266	17.77	537.9
20	.27000-01	295.00	433.00	.2840	.3470	.2967-02	.3632-02	1.905	14.81	534.4
20	.27000-01	287.50	434.00	.2310	.2820	.2413-02	.2951-02	1.558	11.97	531.1
20	.27000-01	280.00	435.00	.1810	.2210	.1891-02	.2310-02	1.226	9.400	528.1
20	.27000-01	273.00	436.00	.1390	.1700	.1450-02	.1772-02	.9410	7.160	528.2
20	.50000-01	352.50	437.00	.1680	.2050	.1752-02	.2143-02	1.128	10.12	532.5

OH103A.AEDC V41B-V2. ORB FUS (X-SECTIONAL) (R4HB01)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
20	.50000-01	334.00	440.00	.1740	.2130	.1823-02	.2230-02	1.174	10.96	532.5
20	.50000-01	327.50	441.00	.1820	.2230	.1900-02	.2326-02	1.222	11.40	533.7
20	.50000-01	311.00	444.00	.2130	.2610	.2230-02	.2728-02	1.436	11.92	532.5
20	.50000-01	306.00	445.00	.2060	.2520	.2153-02	.2635-02	1.385	11.94	533.3
20	.50000-01	300.00	446.00	.2010	.2460	.2099-02	.2569-02	1.351	12.35	533.2
20	.50000-01	295.00	447.00	.1730	.2110	.1807-02	.2210-02	1.166	11.63	531.2
20	.50000-01	289.00	448.00	.1630	.1990	.1700-02	.2077-02	1.102	8.900	528.7
20	.50000-01	284.00	449.00	.1290	.1570	.1345-02	.1643-02	.8730	7.600	527.4
20	.50000-01	274.00	450.00	.7900-01	.9600-01	.8222-03	.1004-02	.5350	6.080	525.9
20	.20500	346.00	453.00	.6200-01	.7500-01	.6444-03	.7873-03	.4180	4.080	528.1
20	.20500	342.00	454.00	.5500-01	.6800-01	.5790-03	.7074-03	.3750	3.660	528.5
20	.20500	338.00	455.00	.5700-01	.7000-01	.5990-03	.7319-03	.3880	3.790	528.4
20	.20500	333.00	456.00	.6700-01	.8200-01	.7020-03	.8578-03	.4550	4.440	528.7
20	.20500	330.00	457.00	.6000-01	.7300-01	.6246-03	.7628-03	.4060	3.930	526.9
20	.20500	326.00	458.00	.5800-01	.7100-01	.6081-03	.7430-03	.3940	3.690	528.6
20	.20500	320.00	460.00	.7900-01	.9700-01	.8259-03	.1009-02	.5350	4.620	528.7
20	.20500	317.00	461.00	.7300-01	.9000-01	.7669-03	.9370-03	.4970	4.130	528.6
20	.20500	313.50	462.00	.8000-01	.9700-01	.8313-03	.1016-02	.5390	4.480	528.7
20	.20500	310.50	463.00	.8100-01	.9900-01	.8508-03	.1040-02	.5510	4.760	528.8
20	.20500	307.00	464.00	.8600-01	.1050	.8959-03	.1095-02	.5800	5.210	529.4
20	.20500	305.00	465.00	.8800-01	.1070	.9169-03	.1121-02	.5930	5.060	529.4
20	.20500	303.00	466.00	.9400-01	.1150	.9840-03	.1203-02	.6360	5.290	529.9
20	.20500	300.50	467.00	.7600-01	.9300-01	.7957-03	.9719-03	.5170	4.380	527.5
20	.20500	298.00	468.00	.9100-01	.1120	.9549-03	.1167-02	.6180	5.550	529.3
20	.20500	295.00	469.00	.9300-01	.1130	.9697-03	.1185-02	.6280	5.030	529.1
20	.20500	292.00	470.00	.7600-01	.9200-01	.7914-03	.9668-03	.5130	5.010	528.1
20	.20500	290.00	471.00	.7400-01	.9100-01	.7760-03	.9484-03	.5020	4.900	529.5
20	.20500	287.00	472.00	.5500-01	.6700-01	.5748-03	.7024-03	.3720	3.980	529.0
20	.20500	284.00	473.00	.5300-01	.7300-01	.6216-03	.7589-03	.4040	3.310	526.1
20	.20500	278.00	474.00	.3400-01	.4100-01	.3510-03	.4281-03	.2290	2.240	523.3
20	.20500	275.50	475.00	.4500-01	.5400-01	.4656-03	.5676-03	.3050	2.990	521.9
20	.20500	273.00	476.00	.2700-01	.3300-01	.2794-03	.3407-03	.1830	1.710	523.2
20	.20500	270.00	477.00	.3000-01	.3600-01	.3122-03	.3807-03	.2040	1.820	523.0

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 10E	HREF BTU/R FT2SEC
46	7.930	25.10	165.4	1237.	91.10	.1790-01	.7890	3710.	.5314-03	.7330-07	.8360	.1437-01

RUN NUMBER	STN NO REF(R) =.040
46	.2941-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
46	.20000-01	348.50	501.00	.2660	.3240	.3817-02	.4658-02	2.616	26.39	551.5
46	.20000-01	338.20	502.00	.2570	.3140	.3695-02	.4506-02	2.540	26.87	549.4
46	.20000-01	328.70	503.00	.2950	.3600	.4236-02	.5163-02	2.902	25.76	551.5
46	.20000-01	320.50	504.00	.3180	.3870	.4567-02	.5565-02	3.149	25.02	547.1
46	.20000-01	312.30	505.00	.3040	.3700	.4364-02	.5322-02	2.998	24.67	549.7
46	.20000-01	303.50	506.00	.2960	.3600	.4248-02	.5178-02	2.925	26.01	548.2
46	.20000-01	296.50	507.00	.2660	.3250	.3824-02	.4665-02	2.622	27.72	550.9
46	.20000-01	287.00	508.00	.2200	.2690	.3167-02	.3861-02	2.178	25.48	548.8
46	.20000-01	278.60	509.00	.2020	.2460	.2906-02	.3533-02	2.025	19.66	539.7
46	.20000-01	270.00	510.00	.1720	.2090	.2470-02	.3001-02	1.728	16.79	537.3
46	.20000-01	262.00	511.00	.1750	.2120	.2508-02	.3046-02	1.756	15.10	536.7
46	.27000-01	350.00	426.00	.2340	.2850	.3355-02	.4091-02	2.306	24.88	549.3
46	.27000-01	343.00	427.00	.2460	.3000	.3531-02	.4306-02	2.426	24.60	549.8
46	.27000-01	335.00	428.00	.2410	.2940	.3468-02	.4221-02	2.402	22.58	544.0
46	.27000-01	324.00	429.00	.2560	.3120	.3680-02	.4481-02	2.546	21.89	544.9
46	.27000-01	320.00	430.00	.2970	.3620	.4272-02	.5202-02	2.954	23.57	545.2
46	.27000-01	310.60	431.00	.3410	.4160	.4896-02	.5974-02	3.354	26.12	551 5
46	.27000-01	295.00	433.00	.2880	.3510	.4143-02	.5044-02	2.868	22.18	544.5
46	.27000-01	287.50	434.00	.2370	.2880	.3400-02	.4132-02	2.373	18.15	538.8
46	.27000-01	280.00	435.00	.1880	.2280	.2704-02	.3282-02	1.898	14.50	534.8
46	.27000-01	273.00	436.00	.1450	.1760	.2080-02	.2523-02	1.465	11.13	532.5
46	.50000-01	352.50	437.00	.1720	.2090	.2474-02	.3006-02	1.729	15.46	537.7

OH103A.AEDC V41B-V2, ORB FUS (X-SECTIONAL) (R4HB01)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
46	.50000-01	334.00	440.00	.1760	.2140	.2530-02	.3074-02	1.766	16.44	538.4
46	.50000-01	327.50	441.00	.1810	.2200	.2596-02	.3156-02	1.808	16.81	540.3
46	.50000-01	311.00	444.00	.2110	.2560	.3028-02	.3682-02	2.110	17.44	540.0
46	.50000-01	306.00	445.00	.2120	.2580	.3047-02	.3705-02	2.121	18.20	540.6
46	.50000-01	300.00	446.00	.2050	.2490	.2946-02	.3582-02	2.050	18.67	540.7
46	.50000-01	295.00	447.00	.1790	.2170	.2568-02	.3120-02	1.794	17.82	538.0
46	.50000-01	289.00	448.00	.1720	.2090	.2472-02	.3001-02	1.735	13.97	535.0
46	.50000-01	284.00	449.00	.1230	.1490	.1768-02	.2144-02	1.247	10.84	531.4
46	.50000-01	274.00	450.00	.8200-01	.9900-01	.1171-02	.1420-02	.8280	9.390	529.6
46	.20500	346.00	453.00	.5900-01	.7200-01	.8498-03	.1029-02	.6020	5.880	528.2
46	.20500	342.00	454.00	.6000-01	.7300-01	.8620-03	.1044-02	.6100	5.960	528.5
46	.20500	338.00	455.00	.6100-01	.7400-01	.8788-03	.1065-02	.6230	6.080	528.3
46	.20500	333.00	456.00	.6600-01	.8000-01	.9518-03	.1153-02	.6740	6.570	528.9
46	.20500	330.00	457.00	.6600-01	.8000-01	.9476-03	.1148-02	.6720	6.510	527.5
46	.20500	326.00	458.00	.7000-01	.8500-01	.1012-02	.1226-02	.7150	6.690	529.7
46	.20500	320.00	460.00	.7800-01	.9500-01	.1126-02	.1364-02	.7970	6.880	529.1
46	.20500	317.00	461.00	.8300-01	.1000+00	.1187-02	.1439-02	.8390	6.980	529.6
46	.20500	313.50	462.00	.8700-01	.1050	.1248-02	.1513-02	.8820	7.370	530.0
46	.20500	310.50	463.00	.8800-01	.1060	.1262-02	.1530-02	.8910	7.690	530.6
46	.20500	307.00	464.00	.8700-01	.1050	.1254-02	.1520-02	.8860	7.950	530.3
46	.20500	305.00	465.00	.9300-01	.1120	.1333-02	.1616-02	.9410	8.030	530.4
46	.20500	303.00	466.00	.1050	.1270	.1505-02	.1824-02	1.062	8.830	530.7
46	.20500	300.50	467.00	.8700-01	.1060	.1255-02	.1521-02	.8890	7.530	528.5
46	.20500	298.00	468.00	.9500-01	.1160	.1371-02	.1662-02	.9680	8.690	530.3
46	.20500	295.00	469.00	.1350	.1640	.1940-02	.2352-02	1.371	10.99	529.9
46	.20500	292.00	470.00	.7900-01	.9600-01	.1133-02	.1373-02	.8000	7.800	530.3
46	.20500	290.00	471.00	.9800-01	.1180	.1402-02	.1700-02	.9900	9.650	530.7
46	.20500	287.00	472.00	.6600-01	.8000-01	.9524-03	.1155-02	.6720	7.180	531.1
46	.20500	284.00	473.00	.6400-01	.7700-01	.9190-03	.1113-02	.6530	5.340	526.0
46	.20500	278.00	474.00	.3300-01	.4000-01	.4699-03	.5685-03	.3350	3.280	523.2
46	.20500	275.50	475.00	.3000-01	.3600-01	.4280-03	.5175-03	.3060	3.000	522.1
46	.20500	273.00	476.00	.3200-01	.3800-01	.4558-03	.5513-03	.3250	3.050	522.7
46	.20500	270.00	477.00	.3100-01	.3800-01	.4522-03	.5468-03	.3230	2.880	522.1

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SLC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
1	7.970	24.98	327.2	1278.	93.20	.3430-01	1.527	3772.	.9943-03	.7502-07	1.550	.2010-01

RUN NUMBER	STN NO REF(R) =.040
1	.2157-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
1	.20000-01	348.50	501.00	.2660	.3250	.5341-02	.6522-02	3.769	37.63	572.1
1	.20000-01	338.20	502.00	.2570	.3130	.5159-02	.6293-02	3.659	38.3[illegible]	568.5
1	.20000-01	328.70	503.00	.2940	.3590	.5906-02	.7210-02	4.171	36.67	571.4
1	.20000-01	320.50	504.00	.3210	.3910	.6457-02	.7863-02	4.613	36.35	563.2
1	.20000-01	312.30	505.00	.3050	.3720	.6122-02	.7467-02	4.340	35.37	568.7
1	.20000-01	303.50	506.00	.2990	.3640	.6004-02	.7318-02	4.271	37.63	566.3
1	.20000-01	296.50	507.00	.2670	.3260	.5367-02	.6551-02	3.796	39.74	570.5
1	.20000-01	287.00	508.00	.2260	.2760	.4542-02	.5539-02	3.226	37.38	567.5
1	.20000-01	278.60	509.00	.2020	.2460	.4068-02	.4946-02	2.930	28.18	557.6
1	.20000-01	270.00	510.00	.1750	.2120	.3514-02	.4268-02	2.541	24.49	554.4
1	.20000-01	262.00	511.00	.1760	.2140	.3539-02	.4296-02	2.567	21.90	552.4
1	.27000-01	350.00	426.00	.2300	.2810	.4624-02	.5641-02	3.280	35.04	568.5
1	.27000-01	343.00	427.00	.2460	.3010	.4951-02	.6040-02	3.507	35.23	569.3
1	.27000-01	335.00	428.00	.2420	.2950	.4862-02	.5920-02	3.473	32.34	563.2
1	.27000-01	324.00	429.00	.2530	.3090	.5091-02	.6202-02	3.632	30.92	564.4
1	.27000-01	320.00	430.00	.2980	.3620	.5979-02	.7280-02	4.275	33.82	562.6
1	.27000-01	310.60	431.00	.3380	.4120	.6785-02	.8283-02	4.795	35.98	571.0
1	.27000-01	295.00	433.00	.2900	.3530	.5831-02	.7103-02	4.161	31.87	564.0
1	.27000-01	287.50	434.00	.2350	.2850	.4715-02	.5730-02	3.402	25.80	556.1
1	.27000-01	280.00	435.00	.1850	.2240	.3710-02	.4499-02	2.702	20.49	549.3
1	.27000-01	273.00	436.00	.1420	.1720	.2857-02	.3461-02	2.089	15.76	546.2
1	.50000-01	352.50	437.00	.1690	.2050	.3396-02	.4125-02	2.453	21.74	555.1

OH103A,AEDC V41B-V2. ORB FUS (X-SECTIONAL) (R4HB01)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
1	.50000-01	334.00	440.00	.1780	.2160	.3569-02	.4338-02	2.572	23.72	557.0
1	.50000-01	327.50	441.00	.1830	.2230	.3679-02	.4475-02	2.642	24.34	559.4
1	.50000-01	311.00	444.00	.2160	.2620	.4335-02	.5272-02	3.114	25.50	559.2
1	.50000-01	306.00	445.00	.2110	.2570	.4238-02	.5156-02	3.042	25.86	559.9
1	.50000-01	300.00	446.00	.2060	.2500	.4132-02	.5026-02	2.966	26.76	559.8
1	.50000-01	295.00	447.00	.1760	.2140	.3546-02	.4309-02	2.558	25.18	556.1
1	.50000-01	289.00	448.00	.1650	.2010	.3321-02	.4030-02	2.414	19.28	550.8
1	.50000-01	284.00	449.00	.1220	.1480	.2457-02	.2978-02	1.794	15.47	547.4
1	.50000-01	274.00	450.00	.8000-01	.9700-01	.1602 02	.1940-02	1.174	13.21	544.5
1	.20500	346.00	453.00	.4400-01	.5300-01	.8803-03	.1066-02	.6450	6.240	545.5
1	.20500	342.00	454.00	.5500-01	.6600-01	.1100-02	.1332-02	.8050	7.800	545.4
1	.20500	338.00	455.00	.5800-01	.7000-01	.1156-02	.1400-02	.8490	8.220	543.7
1	.20500	333.00	456.00	.5000-01	.6000-01	.9952-03	.1205-02	.7290	7.060	545.0
1	.20500	330.00	457.00	.6200-01	.7500-01	.1252-02	.1516-02	.9200	8.840	542.8
1	.20500	326.00	458.00	.6600-01	.8000-01	.1323-02	.1603-02	.9690	8.990	545.2
1	.20500	320.00	460.00	.7300-01	.8900-01	.1472-02	.1783-02	1.079	9.250	544.6
1	.20500	317.00	461.00	.7700-01	.9400-01	.1551-02	.1879-02	1.137	9.370	545.1
1	.20500	313.50	462.00	.8100-01	.9900-01	.1634-02	.1980-02	1.197	9.870	545.6
1	.20500	310.50	463.00	.8300-01	.1000+00	.1664-02	.2016-02	1.217	10.41	546.3
1	.20500	307.00	464.00	.8600-01	.1040	.1724-02	.2090-02	1.260	11.21	547.2
1	.20500	305.00	465.00	.9400-01	.1130	.1879-02	.2278-02	1.373	11.61	547.2
1	.20500	303.00	466.00	.9500-01	.1160	.1915-02	.2321-02	1.398	11.52	547.6
1	.20500	300.50	467.00	.7400-01	.9000-01	.1495-02	.1809-02	1.098	9.240	543.1
1	.20500	298.00	468.00	.9300-01	.1130	.1871-02	.2267-02	1.367	12.16	546.9
1	.20500	295.00	469.00	.9900-01	.1200	.1990-02	.2411-02	1.458	11.59	545.4
1	.20500	292.00	470.00	.8100-01	.9800-01	.1630-02	.1974-02	1.194	11.55	545.3
1	.20500	290.00	471.00	.9300-01	.1120	.1859-02	.2252-02	1.361	13.17	545.7
1	.20500	287.00	472.00	.8000-01	.9700-01	.1605-02	.1944-02	1.176	12.47	545.1
1	.20500	284.00	473.00	.5900-01	.7200-01	.1192-02	.1441-02	.8790	7.140	539.8
1	.20500	278.00	474.00	.3000-01	.3600-01	.5982-03	.7225-03	.4440	4.320	535.3
1	.20500	275.50	475.00	.2500-01	.3000-01	.4950-03	.5978-03	.3680	3.580	534.6
1	.20500	273.00	476.00	.2800-01	.3400-01	.5720-03	.6908-03	.4250	3.960	534.8
1	.20500	270.00	477.00	.2800-01	.3400-01	.5678-03	.6858-03	.4220	3.730	535.2

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
4	7.970	24.96	338.3	1279.	93.30	.3550-01	1.579	3774.	.1027-02	.7508-07	1.600	.2043-01

RUN NUMBER	STN NO REF(R) =.040
4	.2123-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
4	.20000-01	348.50	501.00	.2640	.3210	.5386-02	.6565-02	3.837	38.42	556.4
4	.20000-01	338.20	502.00	.2560	.3120	.5236-02	.6372-02	3.754	39.48	561.6
4	.20000-01	328.70	503.00	.2930	.3560	.5978-02	.7279-02	4.276	37.74	563.3
4	.20000-01	320.50	504.00	.3170	.3850	.6485-02	.7875-02	4.699	37.20	554.1
4	.20000-01	312.30	505.00	.3010	.3660	.6155-02	.7485-02	4.429	36.27	559.1
4	.20000-01	303.50	506.00	.2950	.3580	.6021-02	.7316-02	4.350	38.52	556.3
4	.20000-01	296.50	507.00	.2700	.3290	.5521-02	.6717-02	3.965	41.72	560.4
4	.20000-01	287.00	508.00	.2220	.2700	.4538-02	.5515-02	3.275	38.15	556.9
4	.20000-01	278.60	509.00	.2010	.2430	.4100-02	.4967-02	3.004	29.06	546.1
4	.20000-01	270.00	510.00	.1710	.2070	.3501-02	.4237-02	2.577	24.98	542.6
4	.20000-01	262.00	511.00	.1740	.2100	.3549-02	.4293-02	2.620	22.49	540.5
4	.27000-01	350.00	426.00	.2300	.2810	.4710-02	.5735-02	3.371	36.11	563.0
4	.27000-01	343.00	427.00	.2450	.2980	.5004-02	.6091-02	3.584	36.13	562.4
4	.27000-01	335.00	428.00	.2400	.2920	.4910-02	.5960-02	3.565	33.37	552.6
4	.27000-01	324.00	429.00	.2550	.3100	.5215-02	.6331-02	3.784	32.40	553.2
4	.27000-01	320.00	430.00	.2960	.3590	.6048-02	.7341-02	4.388	34.88	553.1
4	.27000-01	310.00	431.00	.3400	.4140	.6949-02	.8456-02	4.984	38.62	551.5
4	.27000-01	295.00	433.00	.2880	.3500	.5894-02	.7151-02	4.290	33.07	550.9
4	.27000-01	287.50	434.00	.2360	.2860	.4819-02	.5835-02	3.538	26.99	544.4
4	.27000-01	280.00	435.00	.1840	.2230	.3768-02	.4553-02	2.795	21.33	536.9
4	.27000-01	273.00	436.00	.1450	.1750	.2957-02	.3570-02	2.204	16.73	533.6
4	.50000-01	352.50	437.00	.1690	.2040	.3444-02	.4178-02	2.505	22.24	551.2

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
4	.50000-01	334.00	440.00	.1760	.2140	.3606-02	.4375-02	2.624	24.27	551.1
4	.50000-01	327.50	441.00	.1800	.2190	.3686-02	.4474-02	2.674	24.71	553.1
4	.50000-01	311.00	444.00	.2150	.2600	.4387-02	.5322-02	3.190	26.23	551.4
4	.50000-01	306.00	445.00	.2090	.2520	.4250-02	.5158-02	3.090	26.37	551.7
4	.50000-01	300.00	446.00	.2020	.2460	.4137-02	.5019-02	3.010	27.28	551.0
4	.50000-01	295.00	447.00	.1780	.2150	.3628-02	.4396-02	2.657	26.27	546.5
4	.50000-01	289.00	448.00	.1700	.2050	.3468-02	.4195-02	2.561	20.56	540.2
4	.50000-01	284.00	449.00	.1180	.1430	.2418-02	.2920-02	1.799	15.61	534.7
4	.50000-01	274.00	450.00	.8100-01	.9800-01	.1659-02	.2001-02	1.239	14.02	531.9
4	.20500	346.00	453.00	.4900-01	.5900-01	.1004-02	.1214-02	.7400	7.170	541.5
4	.20500	342.00	454.00	.5500-01	.6600-01	.1123-02	.1359-02	.8300	8.050	540.3
4	.20500	338.00	455.00	.5700-01	.6900-01	.1162-02	.1405-02	.8590	8.340	539.4
4	.20500	333.00	456.00	.5600-01	.6700-01	.1137-02	.1375-02	.8390	8.140	540.5
4	.20500	330.00	457.00	.6300-01	.7600-01	.1279-02	.1546-02	.9470	9.120	538.3
4	.20500	326.00	458.00	.6600-01	.8000-01	.1354-02	.1638-02	1.000	9.300	540.5
4	.20500	320.00	460.00	.7400-01	.9000-01	.1520-02	.1837-02	1.123	9.650	539.3
4	.20500	317.00	461.00	.7700-01	.9300-01	.1573-02	.1903-02	1.163	9.620	539.5
4	.20500	313.50	462.00	.8300-01	.1000+00	.1692-02	.2046-02	1.250	10.33	539.9
4	.20500	310.50	463.00	.8300-01	.1000+00	.1691-02	.2046-02	1.249	10.72	540.4
4	.20500	307.00	464.00	.8600-01	.1050	.1767-02	.2137-02	1.303	11.62	541.3
4	.20500	305.00	465.00	.9400-01	.1140	.1926-02	.2330-02	1.421	12.05	541.0
4	.20500	303.00	466.00	.9700-01	.1180	.1991-02	.2408-02	1.468	12.13	541.1
4	.20500	300.50	467.00	.8100-01	.9800-01	.1651-02	.1994-02	1.228	10.37	534.9
4	.20500	298.00	468.00	.9400-01	.1130	.1913-02	.2314-02	1.413	12.62	539.8
4	.20500	295.00	469.00	.1160	.1410	.2378-02	.2874-02	1.761	14.05	538.1
4	.20500	292.00	470.00	.7700-01	.9300-01	.1581-02	.1911-02	1.172	11.39	537.3
4	.20500	290.00	471.00	.9900-01	.1190	.2014-02	.2435-02	1.492	14.49	538.2
4	.20500	287.00	472.00	.7400-01	.8900-01	.1505-02	.1818-02	1.117	11.89	536.6
4	.20500	284.00	473.00	.6100-01	.7300-01	.1241-02	.1495-02	.9310	7.600	528.5
4	.20500	278.00	474.00	.3000-01	.3700-01	.6205-03	.7469-03	.4690	4.590	523.2
4	.20500	275.50	475.00	.3100-01	.3700-01	.6257-03	.7529-03	.4740	4.640	521.8
4	.20500	273.00	476.00	.2800-01	.3300-01	.5652-03	.6801-03	.4280	4.020	521.4
4	.20500	270.00	477.00	.2900-01	.3400-01	.5835-03	.7019-03	.4420	3.940	520.7

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
23	7.880	29.97	86.56	1193.	88.90	.9780-02	.4250	3642.	.2970-03	.7152-07	.4700	.1048-01

RUN NUMBER	STN NO REF(R) =.040
23	.3919-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
23	.20000-01	348.50	501.00	.2960	.3630	.3100-02	.3801-02	2.004	20.27	546.3
23	.20000-01	338.20	502.00	.2840	.3480	.2978-02	.3649-02	1.932	20.49	544.0
23	.20000-01	329.70	503.00	.3250	.3980	.3405-02	.4174-02	2.206	19.65	544.9
23	.20000-01	320.50	504.00	.3510	.4290	.3675-02	.4497-02	2.395	19.09	540.9
23	.20000-01	312.30	505.00	.3250	.3980	.3407-02	.4172-02	2.215	18.29	542.4
23	.20000-01	303.50	506.00	.3120	.3820	.3266-02	.3997-02	2.128	18.99	541.1
23	.20000-01	295.50	507.00	.2740	.3350	.2869-02	.3514-02	1.865	19.79	542.8
23	.20000-01	287.00	508.00	.2150	.2640	.2257-02	.2764-02	1.468	17.23	542.3
23	.20000-01	278.60	509.00	.1990	.2430	.2082-02	.2544-02	1.367	13.30	536.1
23	.20000-01	270.00	510.00	.1680	.2050	.1758-02	.2147-02	1.156	11.25	534.9
23	.20000-01	262.00	511.00	.1660	.2030	.1743-02	.2129-02	1.147	9.880	534.6
23	.27000-01	350.00	426.00	.2700	.3310	.2825-02	.3463-02	1.829	19.77	545.2
23	.27000-01	343.00	427.00	.2770	.3390	.2902-02	.3556-02	1.882	19.14	544.2
23	.27000-01	335.00	428.00	.2740	.3350	.2871-02	.3509-02	1.881	17.74	537.3
23	.27000-01	324.00	429.00	.2870	.3510	.3009-02	.3681-02	1.967	16.96	539.1
23	.27000-01	320.00	430.00	.3330	.4070	.3486-02	.4264-02	2.278	18.23	539.2
23	.27000-01	310.00	431.00	.3630	.4450	.3806-02	.4663-02	2.470	19.31	543.8
23	.27000-01	295.00	433.00	.3060	.3750	.3210-02	.3927-02	2.098	16.27	539.0
23	.27000-01	287.50	434.00	.2420	.2950	.2534-02	.3095-02	1.667	12.78	534.7
23	.27000-01	280.00	435.00	.1890	.2300	.1978-02	.2413-02	1.308	10.01	531.4
23	.27000-01	273.00	436.00	.1390	.1700	.1457-02	.1777-02	.9630	7.320	531.4
23	.50000-01	352.50	437.00	.2050	.2500	.2145-02	.2622-02	1.404	12.56	537.8

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
23	.50000-01	334.00	440.00	.2120	.2590	.2222-02	.2716-02	1.455	13.55	537.8
23	.50000-01	327.50	441.00	.2150	.2640	.2257-02	.2761-02	1.476	13.73	539.0
23	.50000-01	311.00	444.00	.2330	.2850	.2441-02	.2984-02	1.599	13.23	537.7
23	.50000-01	306.00	445.00	.2390	.2920	.2500-02	.3057-02	1.636	14.06	538.2
23	.50000-01	300.00	446.00	.2180	.2670	.2285-02	.2794-02	1.497	13.65	537.7
23	.50000-01	295.00	447.00	.1890	.2310	.1983-02	.2422-02	1.304	12.97	535.2
23	.50000-01	289.00	448.00	.1760	.2150	.1844-02	.2250-02	1.219	9.830	531.6
23	.50000-01	284.00	449.00	.1310	.1590	.1368-02	.1669-02	.9070	7.890	529.7
23	.50000-01	274.00	450.00	.8200-01	.9900-01	.8539-03	.1041-02	.5670	6.440	528.2
23	.20500	346.00	453.00	.8100-01	.9900-01	.8536-03	.1041-02	.5650	5.510	530.6
23	.20500	342.00	454.00	.7500-01	.9200-01	.7874-03	.9605-03	.5210	5.080	530.9
23	.20500	338.00	455.00	.7700-01	.9400-01	.8088-03	.9866-03	.5350	5.220	530.7
23	.20500	333.00	456.00	.9300-01	.1140	.9778-03	.1193-02	.6460	6.300	531.5
23	.20500	330.00	457.00	.8100-01	.9900-01	.8510-03	.1038-02	.5640	5.450	530.1
23	.20500	326.00	458.00	.8200-01	.1000+00	.8564-03	.1045-02	.5660	5.280	532.2
23	.20500	320.00	460.00	.1090	.1330	.1141-02	.1393-02	.7540	6.500	532.1
23	.20500	317.00	461.00	.9800-01	.1190	.1023-02	.1249-02	.6760	5.610	532.2
23	.20500	313.50	462.00	.1030	.1250	.1076-02	.1313-02	.7100	5.900	532.5
23	.20500	310.50	463.00	.9800-01	.1200	.1031-02	.1258-02	.6800	5.860	532.9
23	.20500	307.00	464.00	.1050	.1280	.1102-02	.1346-02	.7270	6.510	533.5
23	.20500	305.00	465.00	.1130	.1380	.1188-02	.1451-02	.7830	6.670	533.4
23	.20500	303.00	466.00	.1210	.1480	.1268-02	.1548-02	.8350	6.930	533.7
23	.20500	300.50	467.00	.9600-01	.1180	.1009-02	.1231-02	.6680	5.660	530.4
23	.20500	298.00	468.00	.1100	.1340	.1153-02	.1407-02	.7610	6.820	532.7
23	.20500	295.00	469.00	.1080	.1320	.1130-02	.1379-02	.7460	5.970	532.5
23	.20500	292.00	470.00	.8700-01	.1060	.9135-03	.1114-02	.6050	5.890	530.9
23	.20500	290.00	471.00	.9100-01	.1110	.9493-03	.1158-02	.6270	6.110	532.1
23	.20500	287.00	472.00	.6800-01	.8300-01	.7144-03	.8715-03	.4730	5.050	530.9
23	.20500	284.00	473.00	.6600-01	.8100-01	.6930-03	.8442-03	.4610	3.770	526.9
23	.20500	278.00	474.00	.3500-01	.4200-01	.3653-03	.4445-03	.2440	2.390	523.4
23	.20500	275.50	475.00	.4100-01	.5000-01	.4288-03	.5217-03	.2870	2.810	522.4
23	.20500	273.00	476.00	.2500-01	.3000-01	.2590-03	.3151-03	.1730	1.630	523.0
23	.20500	270.00	477.00	.2700-01	.3300-01	.2837-03	.3451-03	.1900	1.690	522.6

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
49	7.930	30.00	165.0	1231.	90.60	.1790-01	.7880	3701.	.5327-03	.7294-07	.8400	.1434-01

RUN NUMBER	STN NO REF(R) =.040
49	.2936-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
49	.20000-01	348.50	501.00	.2930	.3590	.4202-02	.5143-02	2.829	28.45	557.5
49	.20000-01	338.20	502.00	.2820	.3450	.4040-02	.4939-02	2.732	28.84	554.4
49	.20000-01	328.70	503.00	.3220	.3940	.4618-02	.5648-02	3.118	27.63	555.5
49	.20000-01	320.50	504.00	.3450	.4210	.4946-02	.6037-02	3.367	26.71	549.8
49	.20000-01	312.30	505.00	.3180	.3890	.4566-02	.5577-02	3.099	25.46	552.0
49	.20000-01	303.50	506.00	.3100	.3780	.4445-02	.5426-02	3.026	26.88	550.0
49	.20000-01	296.50	507.00	.2700	.3300	.3875-02	.4733-02	2.628	27.76	552.4
49	.20000-01	287.00	508.00	.2130	.2610	.3060-02	.3735-02	2.085	24.38	549.4
49	.20000-01	278.60	509.00	.1940	.2360	.2778-02	.3380-02	1.919	18.63	539.9
49	.20000-01	270.00	510.00	.1640	.2000	.2355-02	.2865-02	1.629	15.82	538.9
49	.20000-01	262.00	511.00	.1600	.1940	.2287-02	.2781-02	1.584	13.61	538.0
49	.27000-01	350.00	426.00	.2650	.3240	.3803-02	.4649-02	2.570	27.65	554.7
49	.27000-01	343.00	427.00	.2760	.3370	.3953-02	.4832-02	2.675	27.07	554.1
49	.27000-01	335.00	428.00	.2740	.3340	.3926-02	.4787-02	2.687	25.23	546.3
49	.27000-01	324.00	429.00	.2910	.3550	.4172-02	.5087-02	2.854	24.52	546.6
49	.27000-01	320.00	430.00	.3310	.4040	.4750-02	.5792-02	3.247	25.88	547.1
49	.27000-01	310.60	431.00	.3650	.4460	.5235-02	.6399-02	3.543	27.56	553.9
49	.27000-01	295.00	433.00	.3020	.3680	.4335-02	.5282-02	2.973	22.98	544.9
49	.27000-01	287.50	434.00	.2390	.2910	.3430-02	.4171-02	2.376	18.18	538.0
49	.27000-01	280.00	435.00	.1870	.2270	.2675-02	.3249-02	1.864	14.25	533.8
49	.27000-01	273.00	436.00	.1430	.1740	.2051-02	.2490-02	1.434	10.90	531.5
49	.50000-01	352.50	437.00	.2020	.2460	.2893-02	.3522-02	1.993	17.78	541.8

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. /SEC	TW DEG. R
49	.50000-01	334.00	440.00	.2090	.2550	.2998-02	.3651-02	2.063	19.16	542.6
49	.50000-01	327.50	441.00	.2060	.2520	.2960-02	.3606-02	2.031	18.85	544.3
49	.50000-01	311.00	444.00	.2380	.2900	.3412-02	.4157-02	2.345	19.35	543.4
49	.50000-01	306.00	445.00	.2320	.2830	.3329-02	.4056-02	2.287	19.60	543.7
49	.50000-01	300.00	446.00	.2160	.2630	.3094-02	.3769-02	2.126	19.34	543.5
49	.50000-01	295.00	447.00	.1840	.2240	.2636-02	.3207-02	1.822	18.08	539.5
49	.50000-01	289.00	448.00	.1770	.2150	.2539-02	.3084-02	1.766	14.22	535.0
49	.50000-01	284.00	449.00	.1290	.1570	.1851-02	.2245-02	1.296	11.27	530.4
49	.50000-01	274.00	450.00	.8100-01	.9900-01	.1165-02	.1412-02	.8190	9.290	527.9
49	.20500	346.00	453.00	.7100-01	.8600-01	.1019-02	.1237-02	.7100	6.920	533.5
49	.20500	342.00	454.00	.7400-01	.9000-01	.1059-02	.1286-02	.7390	7.190	533.3
49	.20500	338.00	455.00	.7600-01	.9200-01	.1086-02	.1318-02	.7570	7.380	533.1
49	.20500	333.00	456.00	.7000-01	.8500-01	.1008-02	.1225-02	.7020	6.830	534.8
49	.20500	330.00	457.00	.8000-01	.9700-01	.1148-02	.1393-02	.8010	7.730	532.8
49	.20500	326.00	458.00	.8000-01	.9800-01	.1153-02	.1400-02	.8020	7.480	535.1
49	.20500	320.00	460.00	.7900-01	.9600-01	.1127-02	.1369-02	.7840	6.750	534.9
49	.20500	317.00	461.00	.9800-01	.1180	.1398-02	.1699-02	.9720	8.060	535.2
49	.20500	313.50	462.00	.1030	.1250	.1475-02	.1792-02	1.027	8.510	534.6
49	.20500	310.50	463.00	.1090	.1320	.1559-02	.1894-02	1.084	9.330	535.2
49	.20500	307.00	464.00	.1070	.1300	.1536-02	.1867-02	1.067	9.550	536.2
49	.20500	305.00	465.00	.1130	.1370	.1613-02	.1960-02	1.121	9.530	535.9
49	.20500	303.00	466.00	.1190	.1450	.1709-02	.2077-02	1.187	9.830	536.1
49	.20500	300.50	467.00	.9100-01	.1100	.1303-02	.1581-02	.9100	7.690	532.2
49	.20500	298.00	468.00	.1120	.1350	.1599-02	.1943-02	1.113	9.960	534.7
49	.20500	295.00	469.00	.1250	.1510	.1786-02	.2169-02	1.246	9.970	533.1
49	.20500	292.00	470.00	.9400-01	.1140	.1347-02	.1635-02	.9410	9.170	532.2
49	.20500	290.00	471.00	.9600-01	.1170	.1377-02	.1672-02	.9630	9.380	531.8
49	.20500	287.00	472.00	.7500-01	.9100-01	.1078-02	.1309-02	.7550	8.060	530.3
49	.20500	284.00	473.00	.6800-01	.8300-01	.9793-03	.1186-02	.6910	5.650	525.2
49	.20500	278.00	474.00	.3500-01	.4200-01	.4999-03	.6048-03	.3550	3.480	520.7
49	.20500	275.50	475.00	.3400-01	.4100-01	.4871-03	.5891-03	.3460	3.400	519.6
49	.20500	273.00	476.00	.3700-01	.4500-01	.5368-03	.6491-03	.3820	3.590	519.4
49	.20500	270.00	477.00	.3200-01	.3900-01	.4607-03	.5570-03	.3280	2.920	518.9

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
5	7.970	29.98	338.1	1278.	93.20	.3550-01	1.578	3772.	.1027-02	.7502-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
5	.2123-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
5	.20000-01	348.50	501.00	.2920	.3570	.5963-02	.7290-02	4.185	41.71	575.8
5	.20000-01	338.20	502.00	.2820	.3440	.5750-02	.7019-02	4.062	42.51	571.2
5	.20000-01	328.70	503.00	.3190	.3900	.6514-02	.7957-02	4.589	40.30	573.2
5	.20000-01	320.50	504.00	.3460	.4210	.7064-02	.8602-02	5.047	39.77	563.2
5	.20000-01	312.30	505.00	.3280	.4000	.6701-02	.8174-02	4.753	38.74	568.4
5	.20000-01	303.50	506.00	.3080	.3750	.6282-02	.7654-02	4.479	39.51	564.6
5	.20000-01	296.50	507.00	.2730	.3330	.5571-02	.6793-02	3.956	41.48	567.5
5	.20000-01	287.00	508.00	.2170	.2650	.4438-02	.5404-02	3.172	36.85	562.9
5	.20000-01	278.60	509.00	.1950	.2360	.3975-02	.4824-02	2.884	27.83	552.0
5	.20000-01	270.00	510.00	.1630	.1980	.3330-02	.4037-02	2.428	23.47	548.5
5	.20000-01	262.00	511.00	.1630	.1970	.3324-02	.4028-02	2.431	20.81	546.3
5	.27000-01	350.00	426.00	.2560	.3130	.5232-02	.6387-02	3.696	39.42	571.3
5	.27000-01	343.00	427.00	.2710	.3310	.5532-02	.6753-02	3.907	39.21	571.3
5	.27000-01	335.00	428.00	.2660	.3240	.5434-02	.6613-02	3.895	36.30	561.0
5	.27000-01	324.00	429.00	.2790	.3390	.5689-02	.6925-02	4.073	34.72	561.8
5	.27000-01	320.00	430.00	.3240	.3940	.6616-02	.8052-02	4.737	37.49	561.7
5	.27000-01	310.60	431.00	.3640	.4440	.7435-02	.9074-02	5.259	40.57	570.4
5	.27000-01	295.00	433.00	.2940	.3570	.6003-02	.7299-02	4.320	33.18	558.0
5	.27000-01	287.50	434.00	.2330	.2820	.4752-02	.5764-02	3.455	26.27	550.5
5	.27000-01	280.00	435.00	.1790	.2170	.3663-02	.4435-02	2.691	20.47	543.0
5	.27000-01	273.00	436.00	.1400	.1700	.2863-02	.3462-02	2.113	16.00	539.5
5	.50000-01	352.50	437.00	.1970	.2390	.4026-02	.4391-02	2.906	25.74	555.9

OH103A.AEDC V41B-V2. ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
5	.50000-01	334.00	440.00	.2040	.2480	.4175-02	.5074-02	3.010	27.77	556.6
5	.50000-01	327.50	441.00	.2080	.2530	.4246-02	.5164-02	3.050	28.09	559.4
5	.50000-01	321.00	444.00	.2370	.2890	.4848-02	.5893-02	3.494	28.64	557.0
5	.50000-01	306.00	445.00	.2250	.2730	.4590-02	.5579-02	3.306	28.14	557.4
5	.50000-01	300.00	446.00	.2120	.2580	.4331-02	.5263-02	3.125	28.24	556.2
5	.50000-01	295.00	447.00	.1800	.2180	.3668-02	.4451-02	2.665	26.29	551.2
5	.50000-01	289.00	448.00	.1710	.2070	.3493-02	.4230-02	2.562	20.53	544.1
5	.50000-01	284.00	449.00	.1230	.1490	.2511-02	.3035-02	1.856	16.07	538.4
5	.50000-01	279.00	450.00	.7800-01	.9400-01	.1585-02	.1915-02	1.176	13.28	536.0
5	.20500	346.00	453.00	.7000-01	.8500-01	.1435-02	.1732-02	1.067	10.39	534.0
5	.20500	342.00	454.00	.7000-01	.8500-01	.1439-02	.1737-02	1.071	10.43	533.3
5	.20500	338.00	455.00	.7300-01	.8800-01	.1484-02	.1791-02	1.106	10.78	532.3
5	.20500	333.00	456.00	.7900-01	.9600-01	.1619-02	.1955-02	1.203	11.71	534.7
5	.20500	330.00	457.00	.7700-01	.9300-01	.1577-02	.1903-02	1.176	11.37	531.8
5	.20500	326.00	458.00	.7600-01	.9200-01	.1555-02	.1878-02	1.156	10.78	534.7
5	.20500	320.00	460.00	.9300-01	.1130	.1904-02	.2300-02	1.414	12.18	534.8
5	.20500	317.00	461.00	.9400-01	.1130	.1916-02	.2314-02	1.424	11.80	534.8
5	.20500	313.50	462.00	.9800-01	.1190	.2003-02	.2427-02	1.491	12.35	535.7
5	.20500	310.50	463.00	.9900-01	.1190	.2017-02	.2437-02	1.495	12.86	536.5
5	.20500	307.00	464.00	.1000+00	.1210	.2051-02	.2480-02	1.517	13.56	538.0
5	.20500	305.00	465.00	.1130	.1370	.2310-02	.2792-02	1.709	14.53	537.7
5	.20500	303.00	466.00	.1120	.1350	.2288-02	.2766-02	1.692	14.00	538.3
5	.20500	300.50	467.00	.7900-01	.9600-01	.1619-02	.1953-02	1.208	10.22	531.7
5	.20500	298.00	468.00	.1060	.1280	.2160-02	.2610-02	1.601	14.32	536.6
5	.20500	295.00	469.00	.1120	.1350	.2284-02	.2758-02	1.695	13.55	535.3
5	.20500	292.00	470.00	.8700-01	.1050	.1771-02	.2137-02	1.319	12.85	532.8
5	.20500	290.00	471.00	.9100-01	.1100	.1858-02	.2244-02	1.391	13.44	534.5
5	.20500	287.00	472.00	.6800-01	.8200-01	.1389-02	.1676-02	1.036	11.05	532.0
5	.20500	284.00	473.00	.6400-01	.7700-01	.1302-02	.1568-02	.9810	8.030	524.0
5	.20500	278.00	474.00	.3200-01	.3900-01	.6542-03	.7869-03	.4960	4.860	520.0
5	.20500	275.50	475.00	.3300-01	.3900-01	.6642-03	.7988-03	.5040	4.940	519.6
5	.20500	273.00	476.00	.2300-01	.2700-01	.4597-03	.5528-03	.3490	3.280	519.2
5	.20500	270.00	477.00	.2800-01	.3300-01	.5688-03	.6841-03	.4310	3.850	519.3
***** ERROR	IN	COLATH	R4HB04							

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
26	7.880	35.03	86.30	1204.	89.70	.9750-02	.4240	3659.	.2934-03	.7218-07	.4620	.1048-01

RUN NUMBER	STN NO REF(R) =.040
26	.3947-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
26	.20000-01	348.50	501.00	.3160	.3870	.3314-02	.4059-02	2.173	21.96	547.9
26	.20000-01	338.20	502.00	.3020	.3700	.3166-02	.3874-02	2.083	22.09	545.5
26	.20000-01	328.70	503.00	.3450	.4220	.3612-02	.4421-02	2.374	21.13	546.3
26	.20000-01	320.50	504.00	.3700	.4530	.3880-02	.4742-02	2.569	20.47	541.6
26	.20000-01	312.30	505.00	.3400	.4160	.3565-02	.4359-02	2.355	19.44	543.2
26	.20000-01	303.50	506.00	.3190	.3890	.3339-02	.4080-02	2.213	19.76	540.9
26	.20000-01	296.50	507.00	.2680	.3270	.2804-02	.3427-02	1.856	19.71	541.9
26	.20000-01	287.00	508.00	.2070	.2520	.2165-02	.2645-02	1.437	16.88	540.2
26	.20000-01	278.60	509.00	.1850	.2260	.1941-02	.2365-02	1.301	12.67	533.4
26	.20000-01	270.00	510.00	.1550	.1890	.1624-02	.1978-02	1.091	10.63	531.9
26	.20000-01	262.00	511.00	.1490	.1820	.1564-02	.1906-02	1.052	9.070	531.2
26	.27000-01	350.00	426.00	.2820	.3460	.2959-02	.3624-02	1.943	20.98	547.2
26	.27000-01	343.00	427.00	.2970	.3630	.3110-02	.3807-02	2.045	20.78	546.2
26	.27000-01	335.00	428.00	.2920	.3560	.3055-02	.3730-02	2.032	19.15	538.6
26	.27000-01	324.00	429.00	.3080	.3760	.3224-02	.3939-02	2.139	18.43	540.3
26	.27000-01	320.00	430.00	.3490	.4270	.3659-02	.4470-02	2.428	19.42	540.2
26	.27000-01	310.00	431.00	.3860	.4720	.4042-02	.4945-02	2.664	20.82	544.6
26	.27000-01	295.00	433.00	.3040	.3710	.3183-02	.3884-02	2.121	16.47	537.2
26	.27000-01	287.50	434.00	.2320	.2830	.2431-02	.2963-02	1.630	12.51	533.1
26	.27000-01	280.00	435.00	.1800	.2200	.1890-02	.2301-02	1.274	9.760	529.4
26	.27000-01	273.00	436.00	.1380	.1680	.1449-02	.1764-02	.9780	7.440	529.0
26	.50000-01	352.50	437.00	.2290	.2800	.2398-02	.2929-02	1.592	14.22	539.8

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
26	.50000-01	334.00	440.00	.2310	.2830	.2424-02	.2961-02	1.609	14.96	540.1
26	.50000-01	327.50	441.00	.2270	.2780	.2380-02	.2909-02	1.576	14.65	541.4
26	.50000-01	311.00	444.00	.2610	.3190	.2739-02	.3345-02	1.820	15.05	539.2
26	.50000-01	306.00	445.00	.2450	.2990	.2567-02	.3135-02	1.706	14.65	539.3
26	.50000-01	300.00	446.00	.2250	.2740	.2355-02	.2876-02	1.567	14.30	538.2
26	.50000-01	295.00	447.00	.1910	.2330	.2004-02	.2443-02	1.340	13.33	535.0
26	.50000-01	289.00	448.00	.1730	.2100	.1808-02	.2203-02	1.217	9.810	530.9
26	.50000-01	284.00	449.00	.1240	.1510	.1296-02	.1577-02	.8750	7.610	528.7
26	.50000-01	274.00	450.00	.7800-01	.9400-01	.8122-03	.9879-03	.5500	6.240	526.6
26	.20500	346.00	453.00	.8200-01	.1000+00	.8614-03	.1050-02	.5770	5.620	533.3
26	.20500	342.00	454.00	.9000-01	.1100	.9416-03	.1147-02	.6320	6.150	532.8
26	.20500	338.00	455.00	.9200-01	.1120	.9599-03	.1170-02	.6440	6.280	532.5
26	.20500	333.00	456.00	.9000-01	.1090	.9407-03	.1147-02	.6300	6.130	534.0
26	.20500	330.00	457.00	.9600-01	.1170	.1005-02	.1224-02	.6750	6.520	531.8
26	.20500	326.00	458.00	.9900-01	.1210	.1036-02	.1263-02	.6940	6.470	533.9
26	.20500	320.00	460.00	.1030	.1250	.1077-02	.1313-02	.7210	6.210	533.8
26	.20500	317.00	461.00	.1150	.1400	.1207-02	.1472-02	.8090	6.710	533.7
26	.20500	313.50	462.00	.1190	.1450	.1244-02	.1516-02	.8330	6.910	533.9
26	.20500	310.50	463.00	.1210	.1480	.1268-02	.1546-02	.8490	7.310	534.2
26	.20500	307.00	464.00	.1230	.1500	.1286-02	.1568-02	.8600	7.700	535.0
26	.20500	305.00	465.00	.1250	.1520	.1307-02	.1593-02	.8740	7.440	534.7
26	.20500	303.00	466.00	.1290	.1570	.1353-02	.1650-02	.9050	7.500	534.8
26	.20500	300.50	467.00	.8700-01	.1060	.9097-03	.1108-02	.6120	5.180	530.8
26	.20500	298.00	468.00	.1220	.1480	.1276-02	.1555-02	.8550	7.660	533.4
26	.20500	295.00	469.00	.1240	.1510	.1302-02	.1586-02	.8750	7.000	531.9
26	.20500	292.00	470.00	.1020	.1240	.1069-02	.1302-02	.7190	7.010	531.2
26	.20500	290.00	471.00	.9200-01	.1120	.9650-03	.1175-02	.6490	6.330	530.7
26	.20500	287.00	472.00	.8100-01	.9900-01	.8478-03	.1032-02	.5710	6.110	529.6
26	.20500	284.00	473.00	.7000-01	.8500-01	.7355-03	.8942-03	.4990	4.080	525.4
26	.20500	278.00	474.00	.4000-01	.4800-01	.4176-03	.5072-03	.2850	2.790	522.2
26	.20500	275.50	475.00	.4100-01	.5000-01	.4342-03	.5271-03	.2970	2.910	520.7
26	.20500	273.00	476.00	.3700-01	.4500-01	.3856-03	.4681-03	.2630	2.470	520.7
26	.20500	270.00	477.00	.3500-01	.4200-01	.3615-03	.4388-03	.2470	2.200	520.3

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
52	7.930	34.95	165.0	1223.	90.10	.1790-01	.7880	3689.	.5362-03	.7247-07	.8480	.1432-01

RUN NUMBER	STN NO REF(R) =.040
52	.2924-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
52	.20000-01	348.50	501.00	.3140	.3850	.4490-02	.5510-02	2.967	29.78	561.9
52	.20000-01	338.20	502.00	.3000	.3680	.4297-02	.5266-02	2.855	30.07	558.4
52	.20000-01	328.70	503.00	.3420	.4190	.4896-02	.6001-02	3.249	28.74	559.0
52	.20000-01	320.50	504.00	.3640	.4460	.5219-02	.6384-02	3.498	27.71	552.6
52	.20000-01	312.30	505.00	.3290	.4030	.4716-02	.5772-02	3.154	25.89	554.0
52	.20000-01	303.50	506.00	.3150	.3850	.4506-02	.5509-02	3.026	26.87	551.1
52	.20000-01	296.50	507.00	.2650	.3250	.3802-02	.4650-02	2.548	26.92	552.4
52	.20000-01	287.00	508.00	.2040	.2490	.2923-02	.3570-02	1.972	23.07	548.1
52	.20000-01	278.60	509.00	.1850	.2260	.2654-02	.3231-02	1.815	17.63	538.7
52	.20000-01	270.00	510.00	.1540	.1870	.2202-02	.2680-02	1.509	14.66	537.5
52	.20000-01	262.00	511.00	.1500	.1830	.2153-02	.2620-02	1.477	12.70	536.6
52	.27000-01	350.00	426.00	.2830	.3470	.4055-02	.4971-02	2.690	28.87	559.3
52	.27000-01	343.00	427.00	.2980	.3660	.4271-02	.5234-02	2.838	28.66	558.3
52	.27000-01	335.00	428.00	.2930	.3580	.4198-02	.5130-02	2.825	26.48	549.7
52	.27000-01	324.00	429.00	.3070	.3760	.4402-02	.5379-02	2.962	25.41	549.6
52	.27000-01	320.00	430.00	.3470	.4240	.4974-02	.6079-02	3.348	26.65	549.7
52	.27000-01	310.00	431.00	.3810	.4670	.5457-02	.6683-02	3.638	28.26	556.1
52	.27000-01	295.00	433.00	.3010	.3680	.4315-02	.5265-02	2.923	22.60	545.2
52	.27000-01	287.50	434.00	.2340	.2950	.3353-02	.4082-02	2.297	17.58	537.7
52	.27000-01	280.00	435.00	.1800	.2190	.2584-02	.3141-02	1.781	13.62	533.4
52	.27000-01	273.00	436.00	.1350	.1640	.1934-02	.2350-02	1.338	10.18	530.8
52	.50000-01	352.50	437.00	.2270	.2780	.3255-02	.3974-02	2.199	19.56	547.2

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
52	.50000-01	334.00	440.00	.2290	.2800	.3283-02	.4009-02	2.217	20.54	547.5
52	.50000-01	327.50	441.00	.2330	.2850	.3335-02	.4074-02	2.246	20.79	549.2
52	.50000-01	311.00	444.00	.2550	.3110	.3648-02	.4453-02	2.466	20.32	546.7
52	.50000-01	306.00	445.00	.2430	.2970	.3478-02	.4247-02	2.351	20.12	546.8
52	.50000-01	300.00	446.00	.2230	.2720	.3196-02	.3900-02	2.165	19.67	545.3
52	.50000-01	295.00	447.00	.1890	.2310	.2714-02	.3307-02	1.850	18.35	540.9
52	.50000-01	289.00	448.00	.1730	.2110	.2478-02	.3015-02	1.702	13.70	535.8
52	.50000-01	284.00	449.00	.1250	.1520	.1787-02	.2171-02	1.237	10.75	530.5
52	.50000-01	274.00	450.00	.7800-01	.9500-01	.1120-02	.1360-02	.7790	8.830	527.8
52	.20500	346.00	453.00	.9300-01	.1130	.1331-02	.1620-02	.9120	8.860	537.5
52	.20500	342.00	454.00	.8800-01	.1070	.1262-02	.1537-02	.8630	8.380	538.9
52	.20500	338.00	455.00	.9000-01	.1100	.1291-02	.1571-02	.8850	8.600	537.4
52	.20500	333.00	456.00	.9800-01	.1190	.1397-02	.1701-02	.9550	9.280	538.7
52	.20500	330.00	457.00	.9400-01	.1150	.1350-02	.1644-02	.9260	8.930	536.9
52	.20500	326.00	458.00	.1010	.1230	.1447-02	.1762-02	.9890	9.200	539.4
52	.20500	320.00	460.00	.1080	.1310	.1542-02	.1877-02	1.054	9.060	538.8
52	.20500	317.00	461.00	.1130	.1380	.1618-02	.1971-02	1.106	9.150	539.2
52	.20500	313.50	462.00	.1180	.1440	.1689-02	.2058-02	1.154	9.540	539.7
52	.20500	310.50	463.00	.1170	.1430	.1681-02	.2047-02	1.147	9.840	540.3
52	.20500	307.00	464.00	.1220	.1480	.1744-02	.2125-02	1.188	10.61	541.2
52	.20500	305.00	465.00	.1320	.1600	.1884-02	.2296-02	1.285	10.90	540.7
52	.20500	303.00	466.00	.1380	.1680	.1980-02	.2413-02	1.350	11.16	540.8
52	.20500	300.50	467.00	.1110	.1350	.1591-02	.1935-02	1.094	9.240	534.8
52	.20500	298.00	468.00	.1220	.1490	.1751-02	.2132-02	1.198	10.70	538.6
52	.20500	295.00	469.00	.1320	.1610	.1894-02	.2305-02	1.298	10.36	537.5
52	.20500	292.00	470.00	.9700-01	.1170	.1383-02	.1682-02	.9510	9.260	534.8
52	.20500	290.00	471.00	.9700-01	.1180	.1385-02	.1685-02	.9520	9.260	535.6
52	.20500	287.00	472.00	.7500-01	.9100-01	.1070-02	.1301-02	.7370	7.860	533.9
52	.20500	284.00	473.00	.7200-01	.8700-01	.1032-02	.1252-02	.7180	5.870	526.5
52	.20500	278.00	474.00	.3500-01	.4200-01	.4974-03	.6025-03	.3490	3.420	521.6
52	.20500	275.50	475.00	.3200-01	.3900-01	.4586-03	.5553-03	.3220	3.160	520.5
52	.20500	273.00	476.00	.2900-01	.3600-01	.4216-03	.5104-03	.2960	2.780	520.1
52	.20500	270.00	477.00	.3000-01	.3600-01	.4265-03	.5162-03	.3000	2.680	519.2

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
8	7.970	35.04	337.8	1276.	93.10	.3550-01	1.576	3770.	.1028-02	.7491-07	1.610	.2041-01

RUN NUMBER	STN NO REF(R) =.040
8	.2121-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
8	.20000-01	348.50	501.00	.3200	.3920	.6535-02	.7992-02	4.573	45.58	575.9
8	.20000-01	338.20	502.00	.3070	.3750	.6270-02	.7656-02	4.416	46.22	571.3
8	.20000-01	328.70	503.00	.3470	.4240	.7079-02	.8650-02	4.972	43.66	573.3
8	.20000-01	320.50	504.00	.3750	.4560	.7648-02	.9314-02	5.456	43.02	562.3
8	.20000-01	312.30	505.00	.3420	.4170	.6971-02	.8503-02	4.937	40.25	567.5
8	.20000-01	303.50	506.00	.3220	.3920	.6569-02	.8000-02	4.686	41.37	562.4
8	.20000-01	296.50	507.00	.2790	.3400	.5690-02	.6933-02	4.049	42.52	564.1
8	.20000-01	287.00	508.00	.2150	.2610	.4373-02	.5326-02	3.142	36.58	558.2
8	.20000-01	278.60	509.00	.1880	.2280	.3837-02	.4652-02	2.793	27.01	547.7
8	.20000-01	270.00	510.00	.1580	.1910	.3216-02	.3896-02	2.352	22.78	544.4
8	.20000-01	262.00	511.00	.1550	.1870	.3158-02	.3823-02	2.315	19.85	542.6
8	.27000-01	350.00	426.00	.2840	.3460	.5788-02	.7068-02	4.080	43.53	570.9
8	.27000-01	343.00	427.00	.2960	.3610	.6041-02	.7377-02	4.256	42.70	571.2
8	.27000-01	335.00	428.00	.2910	.3540	.5940-02	.7229-02	4.251	39.64	560.1
8	.27000-01	325.00	429.00	.3030	.3690	.6185-02	.7528-02	4.421	37.71	560.8
8	.27000-01	320.00	430.00	.3450	.4190	.7033-02	.8559-02	5.031	39.84	560.3
8	.27000-01	310.00	431.00	.3830	.4680	.7824-02	.9547-02	5.531	42.70	568.8
8	.27000-01	295.00	433.00	.2970	.3610	.6066-02	.7370-02	4.373	33.65	554.7
8	.27000-01	287.50	434.00	.2310	.2800	.4707-02	.5705-02	3.430	26.14	546.8
8	.27000-01	280.00	435.00	.1770	.2140	.3613-02	.4370-02	2.659	20.26	539.7
8	.27000-01	273.00	436.00	.1340	.1630	.2744-02	.3317-02	2.025	15.34	537.6
8	.50000-01	352.50	437.00	.2290	.2780	.4678-02	.5678-02	3.388	30.08	551.4

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
8	.50000-01	334.00	440.00	.2340	.2850	.4786-02	.5810-02	3.464	32.02	551.9
8	.50000-01	327.50	441.00	.2330	.2830	.4750-02	.5772-02	3.423	31.60	555.0
8	.50000-01	311.00	444.00	.2640	.3200	.5381-02	.6532-02	3.897	32.04	551.5
8	.50000-01	306.00	445.00	.2440	.2960	.4984-02	.6049-02	3.611	30.83	551.1
8	.50000-01	300.00	446.00	.2300	.2790	.4691-02	.5690-02	3.406	30.89	549.4
8	.50000-01	295.00	447.00	.1910	.2310	.3900-02	.4724-02	2.853	28.24	544.2
8	.50000-01	289.00	448.00	.1770	.2130	.3603-02	.4355-02	2.660	21.39	537.4
8	.50000-01	284.00	449.00	.1210	.1470	.2479-02	.2992-02	1.844	16.02	531.9
8	.50000-01	274.00	450.00	.7600-01	.9100-01	.1545-02	.1864-02	1.150	13.02	531.4
8	.20500	346.00	453.00	.8300-01	.1000+00	.1692-02	.2035-02	1.279	12.54	519.8
8	.20500	342.00	454.00	.8700-01	.1050	.1780-02	.2141-02	1.349	13.23	518.2
8	.20500	338.00	455.00	.8900-01	.1070	.1814-02	.2180-02	1.377	13.52	516.6
8	.20500	333.00	456.00	.8900-01	.1070	.1809-02	.2175-02	1.368	13.41	519.4
8	.20500	330.00	457.00	.9300-01	.1120	.1904-02	.2288-02	1.448	14.10	515.5
8	.20500	326.00	458.00	.9500-01	.1150	.1944-02	.2338-02	1.472	13.85	518.3
8	.20500	320.00	460.00	.1070	.1290	.2182-02	.2624-02	1.654	14.36	517.9
8	.20500	317.00	461.00	.1120	.1350	.2289-02	.2752-02	1.735	14.51	517.7
8	.20500	313.50	462.00	.1170	.1410	.2387-02	.2871-02	1.807	15.10	518.6
8	.20500	310.50	463.00	.1170	.1410	.2390-02	.2876-02	1.807	15.68	519.6
8	.20500	307.00	464.00	.1180	.1420	.2413-02	.2904-02	1.820	16.41	521.4
8	.20500	305.00	465.00	.1280	.1540	.2616-02	.3147-02	1.977	16.95	520.0
8	.20500	303.00	466.00	.1310	.1570	.2669-02	.3211-02	2.016	16.83	520.4
8	.20500	300.50	467.00	.9200-01	.1110	.1885-02	.2265-02	1.432	12.22	515.8
8	.20500	298.00	468.00	.1210	.1450	.2465-02	.2965-02	1.866	16.84	518.9
8	.20500	295.00	469.00	.1230	.1470	.2501-02	.3007-02	1.896	15.29	517.7
8	.20500	292.00	470.00	.1000+00	.1200	.2038-02	.2450-02	1.547	15.20	516.5
8	.20500	290.00	471.00	.9200-01	.1110	.1883-02	.2263-02	1.428	14.03	517.0
8	.20500	287.00	472.00	.7600-01	.9200-01	.1557-02	.1871-02	1.183	12.73	516.0
8	.20500	284.00	473.00	.6600-01	.7900-01	.1350-02	.1619-02	1.033	8.520	510.0
8	.20500	278.00	474.00	.3500-01	.4200-01	.7146-03	.8575-03	.5470	5.390	510.3
8	.20500	275.50	475.00	.4000-01	.4800-01	.8121-03	.9749-03	.6200	6.110	511.9
8	.20500	273.00	476.00	.3100-01	.3700-01	.6336-03	.7609-03	.4830	4.560	512.8
8	.20500	270.00	477.00	.3000-01	.3600-01	.6122-03	.7353-03	.4670	4.170	513.5

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
38	7.880	35.05	86.04	1185.	88.30	.9720-02	.4230	3630.	.2972-03	.7104-07	.4720	.1043-01

RUN NUMBER	STN NO REF(R) =.040
38	.3915-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
38	.20000-01	348.50	501.00	.3080	.3790	.3216-02	.3954-02	2.042	20.62	549.8
38	.20000-01	338.20	502.00	.2960	.3630	3086-02	.3790-02	1.967	20.83	547.2
38	.20000-01	328.70	503.00	.3340	.4100	.3485-02	.4281-02	2.220	19.75	547.6
38	.20000-01	320.50	504.00	.3570	.4380	.3729-02	.4573-02	2.392	19.04	543.1
38	.20000-01	312.30	505.00	.3320	.4070	.3461-02	.4246-02	2.217	18.29	544.1
38	.20000-01	303.50	506.00	.3090	.3790	.3228-02	.3956-02	2.075	18.52	541.7
38	.20000-01	296.50	507.00	.2620	.3210	.2734-02	.3353-02	1.756	18.65	542.4
38	.20000-01	287.00	508.00	.2010	.2460	.2093-02	.2564-02	1.349	15.84	540.3
38	.20000-01	278.60	509.00	.1780	.2170	.1855-02	.2268-02	1.208	11.77	533.4
38	.20000-01	270.00	510.00	.1480	.1810	.1542-02	.1883-02	1.007	9.810	531.6
38	.20000-01	262.00	511.00	.1420	.1730	.1478-02	.1804-02	.9660	8.340	530.7
38	.27000-01	350.00	426.00	.2830	.3480	.2951-02	.3627-02	1.875	20.22	549.3
38	.27000-01	343.00	427.00	.2910	.3570	.3031-02	.3724-02	1.929	19.59	548.1
38	.27000-01	335.00	428.00	.2870	.3520	.2993-02	.3670-02	1.924	18.10	541.9
38	.27000-01	324.00	429.00	.2990	.3660	.3115-02	.3819-02	2.003	17.24	541.8
38	.27000-01	320.00	430.00	.3410	.4170	.3553-02	.4355-02	2.285	18.27	541.6
38	.27000-01	310.00	431.00	.3730	.4580	.3883-02	.4774-02	2.485	19.41	545.7
38	.27000-01	295.00	433.00	.2960	.3620	.3084-02	.3777-02	1.991	15.44	539.0
38	.27000-01	287.50	434.00	.2260	.2770	.2363-02	.2888-02	1.539	11.80	533.5
38	.27000-01	280.00	435.00	.1720	.2100	.1799-02	.2196-02	1.178	9.020	529.7
38	.27000-01	273.00	436.00	.1330	.1620	.1387-02	.1693-02	.9100	6.920	528.9
38	.50000-01	352.50	437.00	.2210	.2710	.2307-02	.2831-02	1.477	13.16	544.5

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
38	.50000-01	334.00	440.00	.2250	.2760	.2343-02	.2875-02	1.500	13.92	544.5
38	.50000-01	327.50	441.00	.2240	.2750	.2336-02	.2868-02	1.493	13.84	545.7
38	.50000-01	311.00	444.00	.2550	.3130	.2662-02	.3265-02	1.708	14.10	543.0
38	.50000-01	306.00	445.00	.2350	.2890	.2454-02	.3010-02	1.574	13.49	543.2
38	.50000-01	300.00	446.00	.2250	.2750	.2344-02	.2873-02	1.507	13.71	541.8
38	.50000-01	295.00	447.00	.1840	.2250	.1916-02	.2345-02	1.238	12.30	538.3
38	.50000-01	289.00	448.00	.1650	.2020	.1726-02	.2111-02	1.124	9.050	533.9
38	.50000-01	284.00	449.00	.1230	.1500	.1280-02	.1563-02	.8360	7.270	531.1
38	.50000-01	274.00	450.00	.7600-01	.9200-01	.7897-03	.9634-03	.5190	5.880	527.9
38	.20500	346.00	453.00	.9400-01	.1160	.9850-03	.1207-02	.6330	6.140	541.7
38	.20500	342.00	454.00	.8800-01	.1070	.9148-03	.1121-02	.5880	5.710	541.5
38	.20500	338.00	455.00	.8900-01	.1090	.9313-03	.1142-02	.5990	5.810	541.4
38	.20500	333.00	456.00	.9000-01	.1110	.9400-03	.1153-02	.6030	5.850	542.9
38	.20500	330.00	457.00	.9400-01	.1150	.9770-03	.1197-02	.6290	6.050	540.8
38	.20500	326.00	458.00	.9400-01	.1150	.9759-03	.1197-02	.6260	5.820	542.8
38	.20500	320.00	460.00	.9600-01	.1170	.9963-03	.1222-02	.6400	5.480	542.8
38	.20500	317.00	461.00	.1080	.1330	.1131-02	.1386-02	.7260	6.000	542.4
38	.20500	313.50	462.00	.1150	.1420	.1205-02	.1477-02	.7740	6.390	542.5
38	.20500	310.50	463.00	.1130	.1390	.1180-02	.1448-02	.7580	6.500	542.6
38	.20500	307.00	464.00	.1170	.1430	.1219-02	.1495-02	.7820	6.970	543.2
38	.20500	305.00	465.00	.1290	.1580	.1344-02	.1648-02	.8630	7.310	542.7
38	.20500	303.00	466.00	.1290	.1580	.1348-02	.1653-02	.8650	7.140	542.6
38	.20500	300.50	467.00	.9800-01	.1200	.1023-02	.1252-02	.6620	5.580	537.8
38	.20500	298.00	468.00	.1190	.1460	.1242-02	.1522-02	.8000	7.140	540.5
38	.20500	295.00	469.00	.9800-01	.1200	.1021-02	.1250-02	.6590	5.260	539.1
38	.20500	292.00	470.00	.1070	.1310	.1116-02	.1366-02	.7220	7.020	537.5
38	.20500	290.00	471.00	.6000-01	.7300-01	.6250-03	.7650-03	.4050	3.930	537.3
38	.20500	287.00	472.00	.6200-01	.7600-01	.6508-03	.7959-03	.4230	4.510	535.0
38	.20500	284.00	473.00	.6700-01	.8200-01	.7030-03	.8584-03	.4600	3.750	530.2
38	.20500	278.00	474.00	.4000-01	.4900-01	.4213-03	.5134-03	.2780	2.720	524.6
38	.20500	275.50	475.00	.3100-01	.3800-01	.3265-03	.3976-03	.2160	2.120	522.6
38	.20500	273.00	476.00	.3500-01	.4300-01	.3686-03	.4488-03	.2440	2.300	521.6
38	.20500	270.00	477.00	.3300-01	.4000-01	.3417-03	.4159-03	.2270	2.020	520.7

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
65	7.930	35.06	164.5	1227.	90.30	.1780-01	.7850	3695.	.5328-03	.7270-07	.8420	.1431-01

RUN NUMBER	STN NO REF(R) =.040
65	.2935-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
65	.20000-01	348.50	501.00	.3130	.3830	.4478-02	.5480-02	3.004	30.24	555.8
65	.20000-01	338.20	502.00	.3000	.3670	.4293-02	.5246-02	2.896	30.61	551.9
65	.20000-01	328.70	503.00	.3420	.4180	.4890-02	.5977-02	3.298	29.27	552.2
65	.20000-01	320.50	504.00	.3610	.4410	.5168-02	.6303-02	3.520	27.99	545.5
65	.20000-01	312.30	505.00	.3380	.4120	.4829-02	.5892-02	3.282	27.04	547.1
65	.20000-01	303.50	506.00	.3130	.3810	.4478-02	.5458-02	3.058	27.26	543.7
65	.20000-01	296.50	507.00	.2630	.3200	.3760-02	.4585-02	2.564	27.19	544.8
65	.20000-01	287.00	508.00	.2040	.2480	.2915-02	.3549-02	2.000	23.49	540.5
65	.20000-01	278.60	509.00	.1840	.2230	.2632-02	.3196-02	1.831	17.86	531.0
65	.20000-01	270.00	510.00	.1500	.1820	.2143-02	.2600-02	1.493	14.57	529.7
65	.20000-01	262.00	511.00	.1450	.1750	.2069-02	.2510-02	1.444	12.47	528.6
65	.27000-01	350.00	426.00	.2830	.3460	.4045-02	.4947-02	2.722	29.29	553.8
65	.27000-01	343.00	427.00	.2970	.3630	.4249-02	.5194-02	2.866	29.03	552.3
65	.27000-01	335.00	428.00	.2910	.3540	.4160-02	.5070-02	2.843	26.73	543.3
65	.27000-01	324.00	429.00	.3040	.3700	.4344-02	.5294-02	2.969	25.55	543.2
65	.27000-01	320.00	430.00	.3460	.4220	.4953-02	.6037-02	3.386	27.05	543.1
65	.27000-01	310.00	431.00	.3730	.4560	.5340-02	.6521-02	3.617	28.19	549.4
65	.27000-01	295.00	433.00	.2990	.3640	.4283-02	.5211-02	2.948	22.87	538.2
65	.27000-01	287.50	434.00	.2270	.2760	.3254-02	.3950-02	2.265	17.40	530.6
65	.27000-01	280.00	435.00	.1740	.2110	.2496-02	.3026-02	1.749	13.42	526.1
65	.27000-01	273.00	436.00	.1340	.1620	.1913-02	.2318-02	1.345	10.27	523.6
65	.50000-01	352.50	437.00	.2250	.2750	.3223-02	.3931-02	2.194	19.54	545.8

OH103A.AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
C5	.50000-01	334.00	440.00	.2300	.2800	.3288-02	.4010-02	2.239	20.76	545.8
65	.50000-01	327.50	441.00	.2300	.2800	.3285-02	.4009-02	2.231	20.67	547.6
65	.50000-01	311.00	444.00	.2570	.3130	.3671-02	.4475-02	2.504	20.66	544.4
65	.50000-01	306.00	445.00	.2380	.2900	.3407-02	.4154-02	2.323	19.90	544.7
65	.50000-01	300.00	446.00	.2230	.2720	.3195-02	.3893-02	2.183	19.86	543.2
65	.50000-01	295.00	447.00	.1850	.2250	.2644-02	.3217-02	1.821	18.08	538.0
65	.50000-01	289.00	448.00	.1680	.2040	.2407-02	.2924-02	1.670	13.46	532.8
65	.50000-01	284.00	449.00	.1260	.1530	.1799-02	.2182-02	1.258	10.95	527.5
65	.50000-01	274.00	450.00	.7400-01	.8900-01	.1056-02	.1279-02	.7420	8.440	523.5
65	.20500	346.00	453.00	.9300-01	.1140	.1335-02	.1628-02	.9110	8.820	544.4
65	.20500	342.00	454.00	.8600-01	.1050	.1229-02	.1499-02	.8380	8.120	544.6
65	.20500	338.00	455.00	.8800-01	.1070	.1254-02	.1529-02	.8550	8.280	544.7
65	.20500	333.00	456.00	.9200-01	.1120	.1318-02	.1609-02	.8960	8.670	547.0
65	.20500	330.00	457.00	.9100-01	.1110	.1299-02	.1584-02	.8840	8.480	545.8
65	.20500	326.00	458.00	.9100-01	.1110	.1300-02	.1587-02	.8830	8.190	547.3
65	.20500	320.00	460.00	.1010	.1240	.1450-02	.1770-02	.9840	8.420	547.7
65	.20500	317.00	461.00	.1090	.1330	.1561-02	.1906-02	1.060	8.740	547.5
65	.20500	313.50	462.00	.1130	.1380	.1613-02	.1969-02	1.095	9.020	547.9
65	.20500	310.50	463.00	.1140	.1390	.1632-02	.1993-02	1.107	9.470	548.3
65	.20500	307.00	464.00	.1170	.1420	.1669-02	.2038-02	1.131	10.05	549.0
65	.20500	305.00	465.00	.1210	.1480	.1737-02	.2120-02	1.178	9.960	548.3
65	.20500	303.00	466.00	.1290	.1570	.1843-02	.2250-02	1.250	10.29	548.3
65	.20500	300.50	467.00	.1090	.1330	.1557-02	.1897-02	1.067	8.990	541.3
65	.20500	298.00	468.00	.1180	.1430	.1683-02	.2052-02	1.146	10.21	545.5
65	.20500	295.00	469.00	.1220	.1480	.1742-02	.2124-02	1.190	9.470	543.9
65	.20500	292.00	470.00	.9900-01	.1200	.1413-02	.1721-02	.9690	9.400	541.0
65	.20500	290.00	471.00	.7500-01	.9200-01	.1079-02	.1314-02	.7380	7.160	542.0
65	.20500	287.00	472.00	.6600-01	.8000-01	.9380-03	.1141-02	.6460	6.870	538.2
65	.20500	284.00	473.00	.6800-01	.8300-01	.9757-03	.1184-02	.6800	5.550	530.1
65	.20500	278.00	474.00	.3900-01	.4900-01	.5615-03	.6799-03	.3950	3.870	522.6
65	.20500	275.50	475.00	.3800-01	.4600-01	.5387-03	.6518-03	.3810	3.730	520.1
65	.20500	273.00	476.00	.3300-01	.4000-01	.4720-03	.5709-03	.3340	3.140	518.5
65	.20500	270.00	477.00	.3200-01	.3900-01	.4590-03	.5549-03	.3260	2.910	517.3

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
29	7.880	37.46	85.75	1208.	90.00	.9690-02	.4210	3665.	.2905-03	.7242-07	.4570	.1045-01

RUN NUMBER	STN NO REF(R) =.040
29	.3967-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
29	.20000-01	348.50	501.00	.3140	.3850	.3285-02	.4022-02	2.165	21.87	548.6
29	.20000-01	338.20	502.00	.3020	.3700	.3159-02	.3865-02	2.091	22.16	545.9
29	.20000-01	328.70	503.00	.3380	.4140	.3535-02	.4325-02	2.338	20.81	546.4
29	.20000-01	320.50	504.00	.3640	.4450	.3806-02	.4648-02	2.536	20.21	541.3
29	.20000-01	312.30	505.00	.3340	.4080	.3487-02	.4260-02	2.319	19.15	542.5
29	.20000-01	303.50	506.00	.3080	.3760	.3217-02	.3928-02	2.147	19.17	540.2
29	.20000-01	296.50	507.00	.2600	.3180	.2719-02	.3321-02	1.814	19.27	540.7
29	.20000-01	287.00	508.00	.1950	.2380	.2035-02	.2484-02	1.361	16.00	538.9
29	.20000-01	278.60	509.00	.1710	.2080	.1784-02	.2172-02	1.205	11.74	532.2
29	.20000-01	270.00	510.00	.1400	.1700	.1458-02	.1775-02	.9870	9.630	530.7
29	.20000-01	262.00	511.00	.1330	.1620	.1389-02	.1691-02	.9400	8.100	531.3
29	.27000-01	350.00	426.00	.2780	.3410	.2910-02	.3561-02	1.921	20.74	547.5
29	.27000-01	343.00	427.00	.2990	.3660	.3124-02	.3822-02	2.066	20.99	546.4
29	.27000-01	335.00	428.00	.2890	.3520	.3016-02	.3683-02	2.014	18.97	540.0
29	.27000-01	324.00	429.00	.3050	.3720	.3187-02	.3891-02	2.128	18.35	539.9
29	.27000-01	320.00	430.00	.3450	.4210	.3603-02	.4398-02	2.407	19.26	539.7
29	.27000-01	310.60	431.00	.3720	.4550	.3886-02	.4751-02	2.579	20.16	544.1
29	.27000-01	295.00	433.00	.2900	.3530	.3027-02	.3691-02	2.029	15.75	537.2
29	.27000-01	287.50	434.00	.2170	.2640	.2269-02	.2763-02	1.534	11.77	531.8
29	.27000-01	280.00	435.00	.1640	.1990	.1709-02	.2079-02	1.161	8.900	528.2
29	.27000-01	273.00	436.00	.1260	.1530	.1315-02	.1600-02	.8940	6.810	527.8
29	.50000-01	352.50	437.00	.2300	.2810	.2408-02	.2941-02	1.606	14.33	540.8

OH103A,AEDC V41B-V2. ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
29	.50000-01	334.00	440.00	.2320	.2840	.2427-02	.2964-02	1.619	15.05	540.7
29	.50000-01	327.50	441.00	.2360	.2880	.2465-02	.3011-02	1.641	15.25	541.9
29	.50000-01	311.00	444.00	.2550	.3110	.2663-02	.3250-02	1.780	14.72	539.4
29	.50000-01	306.00	445.00	.2430	.2960	.2536-02	.3096-02	1.695	14.56	539.4
29	.50000-01	300.00	446.00	.2180	.2660	.2277-02	.2778-02	1.525	13.91	538.1
29	.50000-01	295.00	447.00	.1830	.2230	.1909-02	.2326-02	1.285	12.78	534.5
29	.50000-01	289.00	448.00	.1550	.1890	.1620-02	.1971-02	1.097	8.860	530.2
29	.50000-01	284.00	449.00	.1120	.1360	.1170-02	.1422-02	.7950	6.930	527.6
29	.50000-01	274.00	450.00	.7000-01	.8500-01	.7316-03	.8889-03	.4990	5.670	525.3
29	.20500	346.00	453.00	.7700-01	.9300-01	.8003-03	.9750-03	.5390	5.250	533.7
29	.20500	342.00	454.00	.9200-01	.1120	.9614-03	.1171-02	.6480	6.310	534.0
29	.20500	338.00	455.00	.9200-01	.1120	.9626-03	.1173-02	.6490	6.320	533.7
29	.20500	333.00	456.00	.8800-01	.1080	.9218-03	.1123-02	.6200	6.040	534.6
29	.20500	330.00	457.00	.9700-01	.1180	.1012-02	.1233-02	.6830	6.590	533.1
29	.20500	326.00	458.00	.1050	.1280	.1099-02	.1340-02	.7390	6.890	535.3
29	.20500	320.00	460.00	.1140	.1390	.1196-02	.1457-02	.8050	6.930	534.6
29	.20500	317.00	461.00	.1150	.1400	.1199-02	.1462-02	.8070	6.690	535.1
29	.20500	313.50	462.00	.1200	.1460	.1250-02	.1524-02	.8400	6.960	535.3
29	.20500	310.50	463.00	.1220	.1490	.1276-02	.1556-02	.8580	7.380	535.8
29	.20500	307.00	464.00	.1200	.1470	.1256-02	.1531-02	.8430	7.540	536.4
29	.20500	305.00	465.00	.1300	.1590	.1362-02	.1661-02	.9150	7.780	536.0
29	.20500	303.00	466.00	.1260	.1540	.1322-02	.1611-02	.8890	7.370	534.9
29	.20500	300.50	467.00	.1070	.1300	.1114-02	.1356-02	.7530	6.370	531.2
29	.20500	298.00	468.00	.1200	.1470	.1258-02	.1533-02	.8470	7.590	534.3
29	.20500	295.00	469.00	.1510	.1830	.1574-02	.1917-02	1.064	8.520	531.6
29	.20500	292.00	470.00	.8700-01	.1060	.9116-03	.1110-02	.6160	6.010	531.6
29	.20500	290.00	471.00	.1250	.1520	.1302-02	.1585-02	.8600	8.580	531.6
29	.20500	287.00	472.00	.8500-01	.1030	.8878-03	.1080-02	.6020	6.430	529.9
29	.20500	284.00	473.00	.6400-01	.7800-01	.6702-03	.8142-03	.4580	3.740	525.0
29	.20500	278.00	474.00	.3300-01	.4000-01	.3413-03	.4141-03	.2340	2.300	520.7
29	.20500	275.50	475.00	.3400-01	.4100-01	.3557-03	.4314-03	.2450	2.400	519.5
29	.20500	273.00	476.00	.3200-01	.3800-01	.3314-03	.4019-03	.2280	2.140	519.4
29	.20500	270.00	477.00	.2900-01	.3600-01	.3063-03	.3715-03	.2110	1.880	519.3

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
56	7.930	37.48	163.6	1225.	90.20	.1770-01	.7810	3692.	.5308-03	.7259-07	.8390	.1426-01

RUN NUMBER	STN NO REF(R) =.040
56	.2940-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
56	.20000-01	348.50	501.00	.3280	.4030	.4684-02	.5742-02	3.114	31.28	559.9
56	.20000-01	338.20	502.00	.3140	.3850	.4484-02	.5492-02	2.994	31.56	557.0
56	.20000-01	328.70	503.00	.3530	.4330	.5038-02	.6172-02	3.357	29.70	558.4
56	.20000-01	320.50	504.00	.3730	.4570	.5327-02	.6514-02	3.582	28.38	552.2
56	.20000-01	312.30	505.00	.3430	.4190	.4888-02	.5980-02	3.278	26.91	554.0
56	.20000-01	303.50	506.00	.3190	.3900	.4548-02	.5556-02	3.067	27.25	550.2
56	.20000-01	296.50	507.00	.2690	.3280	.3830-02	.4680-02	2.582	27.31	550.4
56	.20000-01	287.00	508.00	.2050	.2500	.2926-02	.3570-02	1.986	23.27	545.9
56	.20000-01	278.60	509.00	.1830	.2220	.2608-02	.3173-02	1.794	17.44	536.9
56	.20000-01	270.00	510.00	.1500	.1820	.2134-02	.2595-02	1.471	14.32	535.3
56	.20000-01	262.00	511.00	.1470	.1790	.2097-02	.2548-02	1.449	12.49	533.4
56	.27000-01	350.00	426.00	.2850	.3490	.4069-02	.4985-02	2.713	29.13	558.0
56	.27000-01	343.00	427.00	.3050	.3740	.4351-02	.5331-02	2.901	29.30	558.0
56	.27000-01	335.00	428.00	.2950	.3600	.4203-02	.5135-02	2.835	26.56	550.2
56	.27000-01	324.00	429.00	.3070	.3760	.4385-02	.5359-02	2.956	25.34	550.6
56	.27000-01	320.00	430.00	.3520	.4310	.5026-02	.6142-02	3.390	26.98	550.3
56	.27000-01	310.00	431.00	.3890	.4760	.5544-02	.6786-02	3.708	28.81	555.8
56	.27000-01	295.00	433.00	.2980	.3630	.4249-02	.5183-02	2.888	22.33	545.1
56	.27000-01	287.50	434.00	.2240	.2730	.3201-02	.3895-02	2.199	16.83	537.8
56	.27000-01	280.00	435.00	.1730	.2100	.2463-02	.2993-02	1.702	13.01	533.5
56	.27000-01	273.00	436.00	.1300	.1580	.1857-02	.2255-02	1.288	9.790	531.0
56	.50000-01	352.50	437.00	.2370	.2890	.3373-02	.4117-02	2.288	20.36	546.5

OH103A.AEDC V41B-V2, ORB FUS (X-SECTIONAL) (R4HB07)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
56	.50000-01	334.00	440.00	.2410	.2940	.3434-02	.4192-02	2.325	21.55	547.5
56	.50000-01	327.50	441.00	.2410	.2940	.3437-02	.4199-02	2.320	21.48	549.6
56	.50000-01	311.00	444.00	.2660	.3250	.3797-02	.4634-02	2.575	21.22	546.4
56	.50000-01	306.00	445.00	.2460	.3000	.3508-02	.4280-02	2.379	20.36	546.4
56	.50000-01	300.00	446.00	.2290	.2790	.3262-02	.3978-02	2.218	20.16	544.8
56	.50000-01	295.00	447.00	.1920	.2340	.2740-02	.3338-02	1.875	18.60	540.5
56	.50000-01	289.00	448.00	.1720	.2100	.2460-02	.2992-02	1.693	13.62	536.5
56	.50000-01	284.00	449.00	.1220	.1480	.1738-02	.2111-02	1.204	10.46	532.0
56	.50000-01	274.00	450.00	.7300-01	.8900-01	.1042-02	.1265-02	.7250	8.220	529.2
56	.20500	346.00	453.00	.9800-01	.1200	.1403-02	.1705-02	.9690	9.440	533.7
56	.20500	342.00	454.00	.9600-01	.1170	.1373-02	.1668-02	.9500	9.250	532.8
56	.20500	338.00	455.00	.9700-01	.1180	.1387-02	.1685-02	.9610	9.360	532.2
56	.20500	333.00	456.00	.9900-01	.1200	.1410-02	.1714-02	.9740	9.480	534.3
56	.20500	330.00	457.00	.1020	.1230	.1450-02	.1761-02	1.005	9.720	531.2
56	.20500	326.00	458.00	.1030	.1260	.1474-02	.1791-02	1.019	9.510	533.6
56	.20500	320.00	460.00	.1050	.1280	.1497-02	.1820-02	1.035	.920	533.4
56	.20500	317.00	461.00	.1220	.1480	.1734-02	.2108-02	1.200	9.950	533.1
56	.20500	313.50	462.00	.1240	.1510	.1774-02	.2156-02	1.226	10.17	533.5
56	.20500	310.50	463.00	.1260	.1530	.1794-02	.2180-02	1.240	10.68	533.5
56	.20500	307.00	464.00	.1320	.1610	.1884-02	.2290-02	1.299	11.63	535.0
56	.20500	305.00	465.00	.1310	.1590	.1868-02	.2271-02	1.289	10.97	534.6
56	.20500	303.00	466.00	.1430	.1740	.2037-02	.2476-02	1.405	11.65	534.8
56	.20500	300.50	467.00	.1130	.1370	.1612-02	.1958-02	1.119	9.480	530.4
56	.20500	298.00	468.00	.1280	.1550	.1624-02	.2216-02	1.261	11.30	533.0
56	.20500	295.00	469.00	.1150	.1390	.1637-02	.1989-02	1.135	9.090	531.7
56	.20500	292.00	470.00	.1080	.1310	.1537-02	.1866-02	1.068	10.41	530.2
56	.20500	290.00	471.00	.7800-01	.9400-01	.1107-02	.1345-02	.7690	7.500	530.4
56	.20500	287.00	472.00	.6900-01	.8400-01	.9901-03	.1202-02	.6890	7.370	528.7
56	.20500	284.00	473.00	.6600-01	.8000-01	.9376-03	.1137-02	.6570	5.370	524.5
56	.20500	278.00	474.00	.3700-01	.4500-01	.5316-03	.6438-03	.3740	3.660	521.9
56	.20500	275.50	475.00	.3300-01	.4000-01	.4761-03	.5765-03	.3350	3.280	521.1
56	.20500	273.00	476.00	.3400-01	.4200-01	.4904-03	.5937-03	.3450	3.240	521.0
56	.20500	270.00	477.00	.3200-01	.3900-01	.4586-03	.5552-03	.3230	2.880	520.6

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
11	7.970	37.57	337.3	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
11	.2125-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
11	.20000-01	348.50	501.00	.3270	.4010	.6671-02	.8184-02	4.609	45.69	586.8
11	.20000-01	338.20	502.00	.3110	.3810	.6340-02	.7764-02	4.415	45.97	581.3
11	.20000-01	328.70	503.00	.3520	.4310	.7184-02	.8800-02	4.997	43.69	582.1
11	.20000-01	320.50	504.00	.3760	.4590	.7667-02	.9356-02	5.426	42.62	569.9
11	.20000-01	312.30	505.00	.3360	.4110	.6861-02	.8383-02	4.826	39.22	574.3
11	.20000-01	303.50	506.00	.3180	.3870	.6480-02	.7905-02	4.593	40.42	568.9
11	.20000-01	296.50	507.00	.2630	.3220	.5375-02	.6559-02	3.803	39.82	570.1
11	.20000-01	287.00	508.00	.2020	.2460	.4123-02	.5025-02	2.936	34.06	565.5
11	.20000-01	278.60	509.00	.1770	.2150	.3618-02	.4391-02	2.626	25.33	551.9
11	.20000-01	270.00	510.00	.1470	.1780	.2998-02	.3635-02	2.185	21.12	548.7
11	.20000-01	262.00	511.00	.1430	.1740	.2927-02	.3547-02	2.138	18.29	547.3
11	.27000-01	350.00	426.00	.2870	.3520	.5859-02	.7179-02	4.073	43.21	582.5
11	.27000-01	343.00	427.00	.3060	.3750	.6246-02	.7650-02	4.348	43.41	581.5
11	.27000-01	335.00	428.00	.2990	.3640	.6090-02	.7429-02	4.317	40.08	568.8
11	.27000-01	324.00	429.00	.3100	.3790	.6333-02	.7725-02	4.491	38.15	568.6
11	.27000-01	320.00	430.00	.3500	.4270	.7148-02	.8718-02	5.072	40.02	568.1
11	.27000-01	310.00	431.00	.3870	.4740	.7901-02	.9662-02	5.540	42.60	576.6
11	.27000-01	295.00	433.00	.2990	.3640	.6109-02	.7434-02	4.381	33.61	560.6
11	.27000-01	287.50	434.00	.2240	.2720	.4574-02	.5551-02	3.322	25.25	551.4
11	.27000-01	280.00	435.00	.1720	.2080	.3505-02	.4244-02	2.572	19.56	543.8
11	.27000-01	273.00	436.00	.1280	.1550	.2614-02	.3163-02	1.924	14.55	541.4
11	.50000-01	352.50	437.00	.2410	.2930	.4909-02	.5987-02	3.486	30.70	567.5

OH103A.AEDC V418-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TC) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
11	.50000-01	334.00	440.00	.2430	.2960	.4952-02	.6038-02	3.516	32.25	567.6
11	.50000-01	327.50	441.00	.2430	.2970	.4962-02	.6056-02	3.512	32.17	570.0
11	.50000-01	311.00	444.00	.2640	.3220	.5390-02	.6568-02	3.840	31.34	565.3
11	.50000-01	306.00	445.00	.2550	.3110	.5207-02	.6344-02	3.713	31.48	564.7
11	.50000-01	300.00	446.00	.2280	.2780	.4659-02	.5672-02	3.333	30.04	562.2
11	.50000-01	295.00	447.00	.1870	.2270	.3816-02	.4636-02	2.756	27.14	555.4
11	.50000-01	289.00	448.00	.1770	.2150	.3613-02	.4379-02	2.641	21.13	546.8
11	.50000-01	284.00	449.00	.1170	.1420	.2392-02	.2894-02	1.762	15.24	541.0
11	.50000-01	274.00	450.00	.7200-01	.8700-01	.1473-02	.1780-02	1.091	12.32	537.0
11	.20500	346.00	453.00	.8600-01	.1050	.1764-02	.2139-02	1.285	12.41	549.2
11	.20500	342.00	454.00	.9200-01	.1120	.1884-02	.2284-02	1.374	13.28	548.4
11	.20500	338.00	455.00	.9400-01	.1140	.1924-02	.2332-02	1.406	13.59	547.2
11	.20500	333.00	456.00	.8600-01	.1040	.1748-02	.2120-02	1.272	12.28	550.0
11	.20500	330.00	457.00	.9800-01	.1190	.1996-02	.2419-02	1.459	13.99	546.7
11	.20500	326.00	458.00	.9800-01	.1190	.1996-02	.2420-02	1.453	13.45	549.6
11	.20500	320.00	460.00	.1000+00	.1210	.2037-02	.2469-02	1.484	12.69	548.8
11	.20500	317.00	461.00	.1170	.1420	.2384-02	.2891-02	1.736	14.29	549.2
11	.20500	313.50	462.00	.1210	.1470	.2475-02	.3002-02	1.800	14.81	550.2
11	.20500	310.50	463.00	.1220	.1480	.2490-02	.3022-02	1.809	15.44	551.4
11	.20500	307.00	464.00	.1260	.1530	.2569-02	.3119-02	1.861	16.51	553.0
11	.20500	305.00	465.00	.1350	.1630	.2746-02	.3333-02	1.991	16.80	552.4
11	.20500	303.00	466.00	.1350	.1630	.2747-02	.3334-02	1.992	16.37	552.5
11	.20500	300.50	467.00	.1130	.1370	.2303-02	.2788-02	1.690	14.21	543.9
11	.20500	298.00	468.00	.1220	.1480	.2495-02	.3026-02	1.816	16.14	549.7
11	.20500	295.00	469.00	.1220	.1480	.2489-02	.3015-02	1.820	14.46	546.4
11	.20500	292.00	470.00	.1040	.1260	.2121-02	.2568-02	1.556	15.07	544.2
11	.20500	290.00	471.00	.9800-01	.1180	.1991-02	.2411-02	1.463	14.17	543.3
11	.20500	287.00	472.00	.7800-01	.9400-01	.1583-02	.1915-02	1.168	12.42	539.8
11	.20500	284.00	473.00	.6300-01	.7700-01	.1295-02	.1563-02	.9660	7.880	531.7
11	.20500	278.00	474.00	.3200-01	.3800-01	.6514-03	.7848-03	.4900	4.790	525.8
11	.20500	275.50	475.00	.3100-01	.3800-01	.6360-03	.7661-03	.4790	4.680	525.2
11	.20500	273.00	476.00	.3300-01	.4000-01	.6778-03	.8164-03	.5100	4.780	525.0
11	.20500	270.00	477.00	.2900-01	.3400-01	.5830-03	.7022-03	.4390	3.900	524.9

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
41	7.880	37.50	86.06	1179.	87.80	.9720-02	.4230	3620.	2988-03	.7068-07	.4760	.1042-01

RUN NUMBER	STN NO REF(R) =.040
41	.3902-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
41	.20000-01	348.50	501.00	.3240	.3980	.3373-02	.4153-02	2.118	21.37	550.8
41	.20000-01	338.20	502.00	.3080	.3790	.3211-02	.3950-02	2.025	21.43	548.2
41	.20000-01	328.70	503.00	.3500	.4310	.3653-02	.4493-02	2.301	20.46	548.6
41	.20000-01	320.50	504.00	.3690	.4530	.3848-02	.4725-02	2.442	19.43	544.0
41	.20000-01	312.30	505.00	.3530	.4340	.3681-02	.4522-02	2.333	19.24	544.8
41	.20000-01	303.50	506.00	.3210	.3940	.3343-02	.4104-02	2.127	18.97	542.5
41	.20000-01	296.50	507.00	.2690	.3300	.2805-02	.3443-02	1.783	18.93	542.9
41	.20000-01	287.00	508.00	.1980	.2420	.2060-02	.2528-02	1.314	15.43	541.0
41	.20000-01	278.60	509.00	.1770	.2160	.1842-02	.2254-02	1.186	11.55	534.6
41	.20000-01	270.00	510.00	.1440	.1770	.1504-02	.1841-02	.9710	9.460	533.1
41	.20000-01	262.00	511.00	.1340	.1640	.1393-02	.1704-02	.8990	7.740	533.6
41	.27000-01	350.00	426.00	.2970	.3650	.3092-02	.3805-02	1.945	20.97	549.8
41	.27000-01	343.00	427.00	.3070	.3770	.3199-02	.3935-02	2.016	20.46	548.4
41	.27000-01	335.00	428.00	.3010	.3700	.3140-02	.3853-02	1.998	18.80	542.2
41	.27000-01	324.00	429.00	.3120	.3830	.3251-02	.3989-02	2.069	17.81	542.2
41	.27000-01	320.00	430.00	.3500	.4300	.3651-02	.4481-02	2.325	18.59	541.9
41	.27000-01	310.00	431.00	.3880	.4770	.4049-02	.4976-02	2.562	20.01	546.0
41	.27000-01	295.00	433.00	.2970	.3640	.3097-02	.3797-02	1.980	15.36	539.3
41	.27000-01	287.50	434.00	.2220	.2720	.2319-02	.2838-02	1.495	11.46	534.1
41	.27000-01	280.00	435.00	.1670	.2050	.1746-02	.2134-02	1.131	8.660	530.6
41	.27000-01	273.00	436.00	.1280	.1570	.1336-02	.1633-02	.8670	6.590	530.0
41	.50000-01	352.50	437.00	.2360	.2900	.2463-02	.3024-02	1.565	13.95	543.3

OH103A,AEDC V418-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
41	.50000-01	334.00	440.00	.2360	.2890	.2457-02	.3017-02	1.561	14.50	543.2
41	.50000-01	327.50	441.00	.2440	.3000	.2543-02	.3123-02	1.613	14.97	544.5
41	.50000-01	311.00	444.00	.2580	.3170	.2694-02	.3306-02	1.716	14.17	541.8
41	.50000-01	306.00	445.00	.2430	.2980	.2531-02	.3106-02	1.611	13.82	542.1
41	.50000-01	300.00	446.00	.2250	.2760	.2343-02	.2874-02	1.495	13.62	540.6
41	.50000-01	295.00	447.00	.1850	.2260	.1927-02	.2361-02	1.236	12.28	537.1
41	.50000-01	289.00	448.00	.1630	.2000	.1700-02	.2080-02	1.098	8.850	532.8
41	.50000-01	284.00	449.00	.1170	.1430	.1222-02	.1493-02	.7930	6.890	530.2
41	.50000-01	274.00	450.00	.7000-01	.8500-01	.7251-03	.8853-03	.4720	5.360	527.4
41	.20500	346.00	453.00	.1010	.1240	.1056-02	.1294-02	.6760	6.570	538.0
41	.20500	342.00	454.00	.9100-01	.1120	.9526-03	.1167-02	.6100	5.930	538.1
41	.20500	338.00	455.00	.9200-01	.1130	.9633-03	.1180-02	.6170	6.000	538.0
41	.20500	333.00	456.00	.1080	.1320	.1125-02	.1380-02	.7190	6.980	539.4
41	.20500	330.00	457.00	.9700-01	.1190	.1015-02	.1243-02	.6510	6.270	537.5
41	.20500	326.00	458.00	.9400-01	.1150	.9753-03	.1196-02	.6230	5.800	539.8
41	.20500	320.00	460.00	.1240	.1520	.1295-02	.1588-02	.8270	7.110	539.8
41	.20500	317.00	461.00	.1150	.1420	.1203-02	.1475-02	.7690	6.360	539.6
41	.20500	313.50	462.00	.1190	.1460	.1241-02	.1521-02	.7920	6.550	539.9
41	.20500	310.50	463.00	.1180	.1450	.1231-02	.1510-02	.7860	6.750	540.2
41	.20500	307.00	464.00	.1240	.1520	.1291-02	.1584-02	.8240	7.350	540.8
41	.20500	305.00	465.00	.1260	.1550	.1317-02	.1615-02	.8400	7.130	540.4
41	.20500	303.00	466.00	.1310	.1610	.1370-02	.1681-02	.8750	7.230	540.4
41	.20500	300.50	467.00	.1030	.1270	.1078-02	.1320-02	.6930	5.850	535.7
41	.20500	298.00	468.00	.1210	.1480	.1258-02	.1541-02	.8050	7.200	538.3
41	.20500	295.00	469.00	.1190	.1460	.1244-02	.1524-02	.7980	6.370	537.3
41	.20500	292.00	470.00	.9700-01	.1180	.1008-02	.1234-02	.6490	6.310	535.1
41	.20500	290.00	471.00	.9000-01	.1110	.9414-03	.1153-02	.6050	5.890	535.6
41	.20500	287.00	472.00	.6300-01	.7700-01	.6595-03	.8068-03	.4260	4.540	533.1
41	.20500	284.00	473.00	.6500-01	.7900-01	.6779-03	.8278-03	.4410	3.600	528.0
41	.20500	278.00	474.00	.3600-01	.4400-01	.3723-03	.4539-03	.2440	2.390	522.9
41	.20500	275.50	475.00	.3800-01	.4600-01	.3924-03	.4781-03	.2580	2.530	521.1
41	.20500	273.00	476.00	.2800-01	.3400-01	.2889-03	.3519-03	.1900	1.780	521.2
41	.20500	270.00	477.00	.2900-01	.3500-01	.3023-03	.3683-03	.1990	1.770	520.4

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
32	7.880	40.08	86.18	1204.	89.70	.9740-02	.4230	3659.	.2930-03	.7218-07	.4620	.1047-01

RUN NUMBER	STN NO REF(R) =.040
32	.3950-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
32	.20000-01	348.50	501.00	.3230	.3960	.3382-02	.4149-02	2.200	22.17	553.1
32	.20000-01	338.20	502.00	.3100	.3800	.3242-02	.3974-02	2.118	22.40	550.3
32	.20000-01	328.70	503.00	.3510	.4310	.3678-02	.4509-02	2.402	21.33	550.6
32	.20000-01	320.50	504.00	.3680	.4500	.3849-02	.4711-02	2.534	20.15	545.5
32	.20000-01	312.30	505.00	.3450	.4220	.3610-02	.4420-02	2.372	19.55	546.5
32	.20000-01	303.50	506.00	.3080	.3760	.3222-02	.3941-02	2.127	18.95	543.7
32	.20000-01	296.50	507.00	.2500	.3060	.2620-02	.3205-02	1.729	18.34	543.8
32	.20000-01	287.00	508.00	.1900	.2320	.1987-02	.2428-02	1.316	15.45	541.5
32	.20000-01	278.60	509.00	.1630	.1990	.1709-02	.2084-02	1.143	11.13	534.8
32	.20000-01	270.00	510.00	.1330	.1620	.1309-02	.1693-02	.9310	9.070	533.2
32	.20000-01	262.00	511.00	.1290	.1570	.1347-02	.1642-02	.9020	7.770	533.6
32	.27000-01	350.00	426.00	.3040	.3720	.3179-02	.3899-02	2.070	22.30	552.3
32	.27000-01	343.00	427.00	.3070	.3770	.3216-02	.3943-02	2.099	21.28	550.8
32	.27000-01	335.00	428.00	.2990	.3660	.3132-02	.3831-02	2.066	19.42	544.1
32	.27000-01	324.00	429.00	.3060	.3740	.3199-02	.3913-02	2.110	18.15	544.0
32	.27000-01	320.00	430.00	.3550	.4350	.3720-02	.4550-02	2.456	19.61	543.6
32	.27000-01	310.00	431.00	.3790	.4650	.3971-02	.4864-02	2.605	20.33	547.7
32	.27000-01	295.00	433.00	.2890	.3540	.3030-02	.3701-02	2.010	15.58	540.2
32	.27000-01	287.50	434.00	.2150	.2620	.2250-02	.2743-02	1.505	11.54	534.6
32	.27000-01	280.00	435.00	.1600	.1940	.1670-02	.2034-02	1.124	8.600	530.9
32	.27000-01	273.00	436.00	.1240	.1520	.1303-02	.1587-02	.8770	6.670	530.4
32	.50000-01	352.50	437.00	.2420	.2960	.2529-02	.3094-02	1.666	14.84	544.8

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
32	.50000-01	334.00	440.00	.2430	.2980	.2549-02	.3118-02	1.680	15.59	544.7
32	.50000-01	327.50	441.00	.2430	.2970	.2542-02	.3112-02	1.672	15.50	546.1
32	.50000-01	311.00	444.00	.2640	.3230	.2768-02	.3385-02	1.830	15.11	542.8
32	.50000-01	306.00	445.00	.2450	.3000	.2569-02	.3141-02	1.698	14.56	542.8
32	.50000-01	300.00	446.00	.2250	.2760	.2361-02	.2885-02	1.564	14.24	541.2
32	.50000-01	295.00	447.00	.1810	.2210	.1898-02	.2316-02	1.264	12.56	537.4
32	.50000-01	289.00	448.00	.1550	.1890	.1624-02	.1979-02	1.089	8.780	532.9
32	.50000-01	284.00	449.00	.1150	.1400	.1200-02	.1462-02	.8080	7.030	530.3
32	.50000-01	274.00	450.00	.6900-01	.8400-01	.7250-03	.8820-03	.4900	5.560	527.6
32	.20500	346.00	453.00	.1100	.1340	.1151-02	.1406-02	.7670	7.450	537.8
32	.20500	342.00	454.00	.1000+00	.1220	.1047-02	.1278-02	.6980	6.780	537.5
32	.20500	338.00	455.00	.1010	.1240	.1060-02	.1294-02	.7070	6.870	537.1
32	.20500	333.00	456.00	.1060	.1290	.1108-02	.1352-02	.7360	7.150	538.8
32	.20500	330.00	457.00	.1050	.1280	.1102-02	.1345-02	.7350	7.090	536.5
32	.20500	326.00	458.00	.1020	.1250	.1070-02	.1306-02	.7120	6.620	538.6
32	.20500	320.00	460.00	.1150	.1400	.1203-02	.1469-02	.8000	6.870	538.6
32	.20500	317.00	461.00	.1240	.1510	.1296-02	.1582-02	.8620	7.140	538.3
32	.20500	313.50	462.00	.1290	.1580	.1352-02	.1650-02	.8990	7.440	538.5
32	.20500	310.50	463.00	.1280	.1560	.1335-02	.1630-02	.8880	7.630	538.7
32	.20500	307.00	464.00	.1280	.1560	.1337-02	.1633-02	.8900	7.950	538.4
32	.20500	305.00	465.00	.1490	.1810	.1555-02	.1898-02	1.035	8.800	537.9
32	.20500	303.00	466.00	.1350	.1650	.1418-02	.1731-02	.9440	7.810	537.9
32	.20500	300.50	467.00	.1180	.1440	.1233-02	.1503-02	.8260	6.980	534.0
32	.20500	298.00	468.00	.1270	.1550	.1326-02	.1618-02	.8840	7.910	536.9
32	.20500	295.00	469.00	.1110	.1360	.1166-02	.1422-02	.7790	6.230	535.5
32	.20500	292.00	470.00	.1080	.1320	.1131-02	.1378-02	.7580	7.380	533.6
32	.20500	290.00	471.00	.6800-01	.8200-01	.7072-03	.8620-03	.4740	4.610	533.7
32	.20500	287.00	472.00	.5700-01	.7000-01	.5998-03	.7306-03	.4030	4.300	531.4
32	.20500	284.00	473.00	.6600-01	.8000-01	.6865-03	.8350-03	.4650	3.800	526.8
32	.20500	278.00	474.00	.3600-01	.4400-01	.3806-03	.4623-03	.2590	2.540	522.2
32	.20500	275.50	475.00	.2800-01	.3400-01	.2911-03	.3534-03	.1990	1.950	521.5
32	.20500	273.00	476.00	.3000-01	.3700-01	.3158-03	.3834-03	.2160	2.030	520.4
32	.20500	270.00	477.00	.3000-01	.3700-01	.3158-03	.3833-03	.2160	1.930	519.9

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
59	7.930	39.98	163.7	1222.	90.00	.1770-01	.7810	3688.	.5324-03	.7241-07	.8430	.1426-01

RUN NUMBER	STN NO REF(R) =.040
59	.2935-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
59	.20000-01	348.50	501.00	.3310	.4060	.4714-02	.5792-02	3.092	30.97	565.7
59	.20000-01	338.20	502.00	.3180	.3900	.4529-02	.5559-02	2.989	31.43	561.8
59	.20000-01	328.70	503.00	.3600	.4410	.5128-02	.6294-02	3.384	29.88	561.9
59	.20000-01	320.50	504.00	.3780	.4620	.5387-02	.6595-02	3.593	28.43	554.8
59	.20000-01	312.30	505.00	.3430	.4210	.4898-02	.5999-02	3.261	26.75	555.9
59	.20000-01	303.50	506.00	.3170	.3870	.4516-02	.5524-02	3.025	26.85	551.8
59	.20000-01	296.50	507.00	.2580	.3160	.3682-02	.4503-02	2.466	26.06	551.9
59	.20000-01	287.00	508.00	.1950	.2380	.2782-02	.3397-02	1.878	21.99	546.7
59	.20000-01	278.60	509.00	.1710	.2090	.2443-02	.2975-02	1.669	16.21	538.6
59	.20000-01	270.00	510.00	.1410	.1710	.2009-02	.2445-02	1.377	13.39	536.2
59	.20000-01	262.00	511.00	.1370	.1660	.1951-02	.2373-02	1.339	11.53	535.1
59	.27000-01	350.00	426.00	.2980	.3630	.4256-02	.5226-02	2.803	30.02	563.2
59	.27000-01	343.00	427.00	.3140	.3850	.4477-02	.5494-02	2.955	29.80	561.6
59	.27000-01	335.00	428.00	.3090	.3780	.4410-02	.5395-02	2.952	27.64	552.3
59	.27000-01	324.00	429.00	.3230	.3950	.4604-02	.5631-02	3.083	26.42	552.0
59	.27000-01	320.00	430.00	.3590	.4390	.5123-02	.6265-02	3.433	27.31	551.5
59	.27000-01	310.00	431.00	.3920	.4800	.5584-02	.6842-02	3.710	28.80	557.3
59	.27000-01	295.00	433.00	.2940	.3580	.4189-02	.5112-02	2.834	21.91	545.1
59	.27000-01	287.50	434.00	.2230	.2710	.3176-02	.3866-02	2.174	16.64	537.2
59	.27000-01	280.00	435.00	.1690	.2060	.2416-02	.2937-02	1.664	12.72	533.0
59	.27000-01	273.00	436.00	.1250	.1520	.1783-02	.2166-02	1.233	9.370	530.5
59	.50000-01	352.50	437.00	.2550	.3110	.3630-02	.4438-02	2.434	21.61	551.2

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
59	.50000-01	334.00	440.00	.2530	.3090	.3608-02	.4411-02	2.421	22.40	550.7
59	.50000-01	327.50	441.00	.2490	.3050	.3558-02	.4353-02	2.381	22.01	552.5
59	.50000-01	311.00	444.00	.2730	.3330	.3892-02	.4756-02	2.619	21.56	548.7
59	.50000-01	306.00	445.00	.2630	.3220	.3755-02	.4588-02	2.528	21.61	548.5
59	.50000-01	300.00	446.00	.2330	.2840	.3317-02	.4049-02	2.239	20.34	546.5
59	.50000-01	295.00	447.00	.1910	.2320	.2719-02	.3314-02	1.850	18.34	541.3
59	.50000-01	289.00	448.00	.1750	.2120	.2489-02	.3029-02	1.707	13.73	536.1
59	.50000-01	284.00	449.00	.1190	.1440	.1692-02	.2055-02	1.169	10.16	530.9
59	.50000-01	274.00	450.00	.7200-01	.8700-01	.1022-02	.1240-02	.7090	8.050	527.5
59	.20500	346.00	453.00	.1000+00	.1220	.1429-02	.1740-02	.9770	9.500	537.9
59	.20500	342.00	454.00	.1030	.1260	.1476-02	.1797-02	1.010	9.820	537.3
59	.20500	338.00	455.00	.1040	.1270	.1488-02	.1812-02	1.019	9.910	536.8
59	.20500	333.00	456.00	.1040	.1260	.1479-02	.1801-02	1.009	9.800	539.1
59	.20500	330.00	457.00	.1080	.1320	.1547-02	.1883-02	1.060	10.22	536.3
59	.20500	326.00	458.00	.1130	.1380	.1612-02	.1963-02	1.101	10.25	538.7
59	.20500	320.00	460.00	.1140	.1390	.1624-02	.1977-02	1.109	9.530	538.7
59	.20500	317.00	461.00	.1280	.1560	.1822-02	.2218-02	1.245	10.30	538.4
59	.20500	313.50	462.00	.1330	.1620	.1897-02	.2311-02	1.295	10.71	539.0
59	.20500	310.50	463.00	.1330	.1620	.1897-02	.2310-02	1.294	11.11	539.5
59	.20500	307.00	464.00	.1340	.1630	.1909-02	.2326-02	1.300	11.61	540.6
59	.20500	305.00	465.00	.1430	.1740	.2039-02	.2484-02	1.390	11.79	540.1
59	.20500	303.00	466.00	.1450	.1770	.2072-02	.2525-02	1.412	11.68	540.1
59	.20500	300.50	467.00	.1170	.1430	.1676-02	.2038-02	1.152	9.730	534.2
59	.20500	298.00	468.00	.1320	.1610	.1684-02	.2294-02	1.289	11.53	537.4
59	.20500	295.00	469.00	.1190	.1450	.1703-02	.2071-02	1.169	9.340	535.0
59	.20500	292.00	470.00	.1140	.1390	.1632-02	.1984-02	1.123	10.94	533.3
59	.20500	290.00	471.00	.8900-01	.1080	.1265-02	.1537-02	.8720	8.490	532.4
59	.20500	287.00	472.00	.7900-01	.9500-01	.1120-02	.1360-02	.7750	8.280	529.8
59	.20500	284.00	473.00	.6800-01	.8200-01	.9661-03	.1171-02	.6740	5.510	524.2
59	.20500	278.00	474.00	.3800-01	.4600-01	.5364-03	.6519-03	.3780	3.700	519.9
59	.20500	275.50	475.00	.3200-01	.3900-01	.4632-03	.5606-03	.3260	3.190	518.9
59	.20500	273.00	476.00	.3500-01	.4200-01	.4956-03	.5998-03	.3480	3.280	518.5
59	.20500	270.00	477.00	.3300-01	.4000-01	.4656-03	.5634-03	.3280	2.920	518.1

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
14	7.970	40.00	337.3	1282.	93.50	.3540-01	1.574	3778.	.1022-02	.7526-07	1.590	.2041-01

RUN NUMBER	STN NO REF(R) =.040
14	.2129-01

•••TEST DATA•••

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
14	.20000-01	348.50	501.00	.3290	.4040	.6726-02	.8248-02	4.670	46.28	587.2
14	.20000-01	338.20	502.00	.3140	.3840	.6411-02	.7848-02	4.490	46.76	581.3
14	.20000-01	328.70	503.00	.3560	.4360	.7267-02	.8896-02	5.088	44.49	581.6
14	.20000-01	320.50	504.00	.3760	.4580	.7669-02	.9358-02	5.449	42.76	571.2
14	.20000-01	312.30	505.00	.3450	.4210	.7037-02	.8590-02	4.989	40.57	572.8
14	.20000-01	303.50	506.00	.3140	.3830	.6419-02	.7821-02	4.589	40.43	566.8
14	.20000-01	296.50	507.00	.2610	.3180	.5319-02	.6482-02	3.801	39.86	567.1
14	.20000-01	287.00	508.00	.1920	.2340	.3928-02	.4780-02	2.827	32.85	562.0
14	.20000-01	278.60	509.00	.1670	.2030	.3417-02	.4140-02	2.505	24.21	548.4
14	.20000-01	270.00	510.00	.1360	.1650	.2782-02	.3368-02	2.049	19.84	545.1
14	.20000-01	262.00	511.00	.1320	.1600	.2703-02	.3271-02	1.994	17.09	543.8
14	.27000-01	350.00	426.00	.3080	.3780	.6296-02	.7712-02	4.393	46.58	583.8
14	.27000-01	343.00	427.00	.3070	.3760	.6265-02	.7670-02	4.384	43.76	581.9
14	.27000-01	335.00	428.00	.3030	.3590	.6180-02	.7533-02	4.408	40.93	568.4
14	.27000-01	324.00	429.00	.3100	.3780	.6326-02	.7711-02	4.514	38.37	568.1
14	.27000-01	320.00	430.00	.3540	.4320	.7228-02	.8808-02	5.164	40.76	567.2
14	.27000-01	310.00	431.00	.3830	.4680	.7811-02	.9543-02	5.517	42.45	575.4
14	.27000-01	295.00	433.00	.2920	.3550	.5956-02	.7238-02	4.308	33.09	558.3
14	.27000-01	287.50	434.00	.2160	.2620	.4409-02	.5343-02	3.231	24.59	548.8
14	.27000-01	280.00	435.00	.1620	.1960	.3313-02	.4006-02	2 454	18.68	541.1
14	.27000-01	273.00	436.00	.1220	.1480	.2498-02	.3019-02	1.856	14.05	538.9
14	.50000-01	352.50	437.00	.2450	.2990	.5004-02	.6106-02	3.554	31.24	571.4

OH103A.AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
14	.50000-01	334.00	440.00	.2470	.3010	.5039-02	.6144-02	3.592	32.93	568.8
14	.50000-01	327.50	441.00	.2500	.3050	.5105-02	.6228-02	3.627	33.22	571.1
14	.50000-01	311.00	444.00	.2660	.3240	.5432-02	.6621-02	3.878	31.62	567.7
14	.50000-01	306.00	445.00	.2490	.3040	.5087-02	.6198-02	3.636	30.80	566.9
14	.50000-01	300.00	446.00	.2280	.2780	.4656-02	.5669-02	3.342	30.09	563.9
14	.50000-01	295.00	447.00	.1840	.2230	.3753-02	.4559-02	2.723	26.80	556.2
14	.50000-01	289.00	448.00	.1620	.1960	.3307-02	.4006-02	2.428	19.43	547.4
14	.50000-01	284.00	449.00	.1100	.1330	.2252-02	.2723-02	1.668	14.43	540.9
14	.50000-01	274.00	450.00	.6800-01	.8200-01	.1386-02	.1674-02	1.033	11.67	536.2
14	.20500	346.00	453.00	.8600-01	.1040	.1748-02	.2126-02	1.262	12.13	559.8
14	.20500	342.00	454.00	.9700-01	.1180	.1982-02	.2410-02	1.432	13.76	559.5
14	.20500	338.00	455.00	.9900-01	.1200	.2016-02	.2451-02	1.458	14.02	558.4
14	.20500	333.00	456.00	.9300-01	.1140	.1907-02	.2319-02	1.374	13.20	561.0
14	.20500	330.00	457.00	.1020	.1240	.2089-02	.2539-02	1.511	14.41	558.1
14	.20500	326.00	458.00	.1060	.1280	.2154-02	.2620-02	1.552	14.28	561.1
14	.20500	320.00	460.00	.1190	.1450	.2437-02	.2964-02	1.759	14.95	560.0
14	.20500	317.00	461.00	.1220	.1480	.2481-02	.3018-02	1.789	14.64	560.6
14	.20500	313.50	462.00	.1260	.1530	.2566-02	.3121-02	1.848	15.11	561.5
14	.20500	310.50	463.00	.1260	.1540	.2582-02	.3142-02	1.856	15.76	562.7
14	.20500	307.00	464.00	.1290	.1570	.2628-02	.3199-02	1.886	16.64	564.0
14	.20500	305.00	465.00	.1480	.1800	.3026-02	.3682-02	2.178	18.28	562.0
14	.20500	303.00	466.00	.1380	.1680	.2818-02	.3428-02	2.029	16.59	561.7
14	.20500	300.50	467.00	.9700-01	.1180	.1980-02	.2403-02	1.443	12.08	552.8
14	.20500	298.00	468.00	.1250	.1520	.2560-02	.3111-02	1.853	16.39	558.0
14	.20500	295.00	469.00	.1390	.1690	.2837-02	.3444-02	2.064	16.34	554.2
14	.20500	292.00	470.00	.9900-01	.1200	.2011-02	.2440-02	1.467	14 15	552.4
14	.20500	290.00	471.00	.1140	.1390	.2332-02	.2829-02	1.703	16.44	551.4
14	.20500	287.00	472.00	.8500-01	.1020	.1725-02	.2090-02	1.268	13.43	546.8
14	.20500	284.00	473.00	.6300-01	.7600-01	.1288-02	.1555-02	.9610	7.810	535.9
14	.20500	278.00	474.00	.3200-01	.3900-01	.6604-03	.7960-03	.4970	4.850	529.0
14	.20500	275.50	475.00	.3100-01	.3700-01	.6265-03	.7549-03	.4720	4.610	527.8
14	.20500	273.00	476.00	.2900-01	.3500-01	.5945-03	.7162-03	.4490	4.200	527.1
14	.20500	270.00	477.00	.2800-01	.3400-01	.5776-03	.6956-03	.4370	3.880	525.9

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
35	7.880	42.52	86.46	1196.	89.10	.9770-02	.4250	3646.	.2959-03	.7170-07	.4680	.1047-01

RUN NUMBER	STN NO REF(R) =.040
35	.3927-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
35	.20000-01	348.50	501.00	.8860	1.090	.9279-02	.1142-01	5.922	59.57	557.5
35	.20000-01	338.20	502.00	.7580	.9300	.7935-02	.9743-02	5.112	54.04	551.4
35	.20000-01	326.70	503.00	.8670	1.066	.9087-02	.1116-01	5.837	51.77	553.3
35	.20000-01	320.50	504.00	.6900	.8450	.7227-02	.8846-02	4.721	37.59	542.4
35	.20000-01	312.30	505.00	.7080	.8680	.7414-02	.9089-02	4.811	39.64	546.8
35	.20000-01	303.50	506.00	.5560	.6800	.5825-02	.7126-02	3.813	34.04	541.0
35	.20000-01	296.50	507.00	.4290	.5250	.4492-02	.5498-02	2.935	31.17	542.2
35	.20000-01	287.00	508.00	.2760	.3370	.2892-02	.3534-02	1.903	22.39	537.6
35	.20000-01	278.60	509.00	.2250	.2750	.2362-02	.2880-02	1.569	15.30	531.3
35	.20000-01	270.00	510.00	.1730	.2110	.1812-02	.2208-02	1.207	11.78	529.4
35	.20000-01	262.00	511.00	.1580	.1920	.1654-02	.2016-02	1.104	9.530	528.5
35	.27000-01	350.00	426.00	.7980	.9810	.8355-02	.1028-01	5.336	57.33	557.0
35	.27000-01	343.00	427.00	.8240	1.014	.8635-02	.1062-01	5.525	55.87	555.8
35	.27000-01	335.00	428.00	.7110	.8710	.7446-02	.9120-02	4.851	45.60	544.2
35	.27000-01	326.00	429.00	.7050	.8640	.7389-02	.9054-02	4.805	41.31	545.3
35	.27000-01	320.00	430.00	.7540	.9240	.7903-02	.9675-02	5.159	41.22	542.9
35	.27000-01	310.60	431.00	.7950	.9750	.8328-02	.1022-01	5.388	42.02	548.7
35	.27000-01	295.00	433.00	.4930	.6020	.5160-02	.6307-02	3.390	26.30	538.6
35	.27000-01	287.50	434.00	.3240	.3950	.3395-02	.4140-02	2.255	17.32	531.3
35	.27000-01	280.00	435.00	.2320	.2820	.2425-02	.2954-02	1.619	12.41	528.1
35	.27000-01	273.00	436.00	.1850	.2260	.1940-02	.2362-02	1.298	9.890	526.7
35	.50000-01	352.50	437.00	.7500	.9190	.7853-02	.9627-02	5.098	45.37	546.5

OH103A,AEOC V41B-V2, ORB FUS (X-SECTIONAL) (R4HB10)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
35	.50000-01	334.00	440.00	.7200	.8830	.7544-02	.9246-02	4.899	45.43	546.2
35	.50000-01	327.50	441.00	.6440	.7910	.6747-02	.8281-02	4.356	40.31	550.0
35	.50000-01	311.00	444.00	.5970	.7310	.6256-02	.7661-02	4.077	33.64	543.9
35	.50000-01	306.00	445.00	.5400	.6620	.5658-02	.6933-02	3.680	31.51	545.4
35	.50000-01	300.00	446.00	.4600	.5630	.4816-02	.5894-02	3.147	28.65	542.1
35	.50000-01	295.00	447.00	.3450	.4210	.3612-02	.4412-02	2.381	23.67	536.4
35	.50000-01	289.00	448.00	.2870	.3490	.3002-02	.3660-02	1.994	16.09	531.3
35	.50000-01	284.00	449.00	.1790	.2180	.1871-02	.2279-02	1.249	10.88	527.8
35	.50000-01	274.00	450.00	.1030	.1260	.1082-02	.1316-02	.7250	8.240	525.1
35	.20500	346.00	453.00	.4270	.5230	.4475-02	.5482-02	2.911	28.18	545.1
35	.20500	342.00	454.00	.4290	.5250	.4493-02	.5499-02	2.935	28.45	542.4
35	.20500	338.00	455.00	.4000	.4890	.4188-02	.5123-02	2.743	26.61	540.8
35	.20500	333.00	456.00	.4130	.5060	.4324-02	.5299-02	2.809	27.18	546.1
35	.20500	330.00	457.00	.4130	.5050	.4323-02	.5286-02	2.836	27.30	539.5
35	.20500	326.00	458.00	.4180	.5120	.4381-02	.5367-02	2.851	26.45	544.9
35	.20500	320.00	460.00	.4090	.5010	.4280-02	.5243-02	2.788	23.89	544.3
35	.20500	317.00	461.00	.4300	.5270	.4506-02	.5518-02	2.940	24.27	543.3
35	.20500	313.50	462.00	.4350	.5330	.4557-02	.5580-02	2.972	24.53	543.6
35	.20500	310.50	463.00	.4130	.5060	.4331-02	.5304-02	2.823	24.19	543.9
35	.20500	307.00	464.00	.4060	.4970	.4254-02	.5211-02	2.770	24.68	544.5
35	.20500	305.00	465.00	.4110	.5030	.4307-02	.5274-02	2.810	23.81	543.3
35	.20500	303.00	466.00	.3940	.4820	.4127-02	.5053-02	2.693	22.24	543.0
35	.20500	300.50	467.00	.3050	.3730	.3197-02	.3905-02	2.108	17.79	536.2
35	.20500	298.00	468.00	.3150	.3850	.3296-02	.4030-02	2.163	19.32	539.4
35	.20500	295.00	469.00	.2700	.3300	.2832-02	.3460-02	1.864	14.88	537.3
35	.20500	292.00	470.00	.2340	.2860	.2452-02	.2994-02	1.618	15.74	535.7
35	.20500	290.00	471.00	.1650	.2020	.1732-02	.2114-02	1.143	11.13	535.3
35	.20500	287.00	472.00	.1390	.1690	.1453-02	.1772-02	.9640	10.28	532.4
35	.20500	284.00	473.00	.1170	.1430	.1227-02	.1494-02	.8200	6.700	527.1
35	.20500	278.00	474.00	.6100-01	.7400-01	.6389-03	.7768-03	.4300	4.210	522.3
35	.20500	275.50	475.00	.5500-01	.6600-01	.5727-03	.6959-03	.3870	3.790	520.3
35	.20500	273.00	476.00	.5800-01	.7000-01	.6062-03	.7367-03	.4090	3.840	521.1
35	.20500	270.00	477.00	.5600-01	.6800-01	.5865-03	.7128-03	.3960	3.530	520.5

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
62	7.930	42.55	166.0	1223.	90.10	.1800-01	.7920	3689.	.5395-03	.7247-07	.8540	.1436-01

RUN NUMBER	STN NO REF(R) =.040
62	.2916-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
62	.20000-01	348.50	501.00	.9860	1.215	.1416-01	.1745-01	9.193	91.73	573.5
62	.20000-01	338.20	502.00	.6920	.8510	.9947-02	.1222-01	6.532	68.53	566.0
62	.20000-01	328.70	503.00	.9470	1.165	.1361-01	.1673-01	8.906	78.42	568.1
62	.20000-01	320.50	504.00	.6470	.7930	.9298-02	.1139-01	6.196	48.99	556.3
62	.20000-01	312.30	505.00	.7580	.9300	.1089-01	.1335-01	7.218	59.08	560.0
62	.20000-01	303.50	506.00	.5070	.6200	.7282-02	.8907-02	4.881	43.31	552.4
62	.20000-01	296.50	507.00	.3660	.4470	.5255-02	.6424-02	3.529	37.30	551.1
62	.20000-01	287.00	508.00	.2690	.3290	.3869-02	.4725-02	2.611	30.56	547.8
62	.20000-01	278.60	509.00	.2150	.2610	.3082-02	.3751-02	2.111	20.52	537.6
62	.20000-01	270.00	510.00	.1710	.2080	.2459-02	.2992-02	1.688	16.42	536.1
62	.20000-01	262.00	511.00	.1570	.1920	.2262-02	.2751-02	1.557	13.40	534.6
62	.27000-01	350.00	426.00	.8960	1.104	.1288-01	.1586-01	8.383	89.41	571.7
62	.27000-01	343.00	427.00	.9420	1.159	.1353-01	.1665-01	8.825	88.60	570.4
62	.27000-01	335.00	428.00	.6150	.7530	.8835-02	.1082-01	5.891	55.04	555.9
62	.27000-01	324.00	429.00	.7740	.9480	.1111-01	.1361-01	7.391	63.15	557.5
62	.27000-01	320.00	430.00	.6700	.8200	.9627-02	.1178-01	6.435	51.11	554.3
62	.27000-01	310.00	431.00	.8800	1.079	.1264-01	.1551-01	8.350	64.69	561.9
62	.27000-01	295.00	433.00	.5000	.6110	.7184-02	.8770-02	4.858	37.53	546.5
62	.27000-01	287.50	434.00	.3180	.3870	.4564-02	.5558-02	3.121	23.88	538.8
62	.27000-01	280.00	435.00	.2240	.2720	.3220-02	.3914-02	2.221	16.98	533.0
62	.27000-01	273.00	436.00	.1770	.2150	.2547-02	.3095-02	1.760	13.38	531.7
62	.50000-01	352.50	437.00	.7420	.9090	.1065-01	.1305-01	7.076	62.60	558.4

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL) (R4HB10)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWOT DEG. /SEC	TW DEG. R
62	.50000-01	334.00	440.00	.6980	.8560	.1003-01	.1229-01	6.672	61.52	557.6
62	.50000-01	327.50	441.00	.8500	1.043	.1220-01	.1498-01	8.044	73.94	563.5
62	.50000-01	311.00	444.00	.7320	.8960	.1051-01	.1287-01	7.010	57.50	555.9
62	.50000-01	306.00	445.00	.6440	.7890	.9256-02	.1133-01	6.181	52.68	554.9
62	.50000-01	300.00	446.00	.5080	.6210	.7296-02	.8919-02	4.900	44.40	551.0
62	.50000-01	295.00	447.00	.3270	.3990	.4701-02	.5734-02	3.193	31.62	543.6
62	.50000-01	289.00	448.00	.3110	.3780	.4461-02	.5432-02	3.049	24.50	539.1
62	.50000-01	284.00	449.00	.1870	.2270	.2680-02	.3257-02	1.948	16.05	533.1
62	.50000-01	274.00	450.00	.1060	.1280	.1516-02	.1841-02	1.050	11.90	529.9
62	.20500	346.00	453.00	.6190	.7570	.8889-02	.1088-01	5.943	57.27	554.1
62	.20500	342.00	454.00	.5230	.6390	.7515-02	.9182-02	5.060	48.88	549.3
62	.20500	338.00	455.00	.4320	.5270	.6200-02	.7570-02	4.186	40.48	547.4
62	.20500	333.00	456.00	.6270	.7670	.8999-02	.1102-01	6.002	57.80	555.7
62	.20500	330.00	457.00	.3920	.4780	.5631-02	.6873-02	3.810	36.55	546.0
62	.20500	326.00	458.00	.6100	.7470	.8764-02	.1073-01	5.857	54.09	554.4
62	.20500	320.00	460.00	.6320	.7740	.9083-02	.1111-01	6.076	51.81	553.7
62	.20500	317.00	461.00	.6650	.8130	.9548-02	.1168-01	6.403	52.62	552.0
62	.20500	313.50	462.00	.6670	.8160	.9585-02	.1172-01	6.424	52.78	552.5
62	.20500	310.50	463.00	.6250	.7650	.8976-02	.1098-01	6.005	51.21	553.6
62	.20500	307.00	464.00	.6420	.7860	.9221-02	.1128-01	6.165	54.66	554.0
62	.20500	305.00	465.00	.6090	.7450	.8752-02	.1071-01	5.864	49.46	552.7
62	.20500	303.00	466.00	.5880	.7200	.8451-02	.1034-01	5.661	46.50	552.9
62	.20500	300.50	467.00	.4080	.4980	.5865-02	.7159-02	3.966	33.30	546.4
62	.20500	298.00	468.00	.4650	.5930	.6674-02	.8517-02	4.705	41.84	548.0
62	.20500	295.00	469.00	.4180	.5100	.6000-02	.7328-02	4.050	32.16	547.7
62	.20500	292.00	470.00	.3100	.3780	.4446-02	.5423-02	3.017	29.23	544.0
62	.20500	290.00	471.00	.2470	.3020	.3552-02	.4331-02	2.412	23.37	543.5
62	.20500	287.00	472.00	.1790	.2180	.2567-02	.3126-02	1.755	18.67	539.0
62	.20500	284.00	473.00	.1400	.1700	.2011-02	.2443-02	1.391	11.35	530.9
62	.20500	278.00	474.00	.7100-01	.8600-01	.1017-02	.1233-02	.7090	6.930	525.5
62	.20500	275.50	475.00	.5500-01	.6700-01	.7921-03	.9601-03	.5530	5.420	523.9
62	.20500	273.00	476.00	.6500-01	.7900-01	.9308-03	.1128-02	.6510	6.110	523.1
62	.20500	270.00	477.00	.6200-01	.7500-01	.8952-03	.1084-02	.6270	5.590	522.0

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
17	7.970	42.53	337.1	1278.	93.20	.3540-01	1.573	3772.	.1024-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
17	.2126-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
17	.20000-01	348.50	501.00	.3380	.4140	.6896-02	.8446-02	4.802	47.72	581.4
17	.20000-01	338.20	502.00	.3230	.3950	.6583-02	.8048-02	4.619	48.23	575.9
17	.20000-01	328.70	503.00	.3630	.4440	.7411-02	.9063-02	5.197	45.56	576.5
17	.20000-01	320.50	504.00	.3840	.4680	.7826-02	.9538-02	5.572	43.85	565.7
17	.20000-01	312.30	505.00	.3430	.4180	.6995-02	.8528-02	4.970	40.53	567.2
17	.20000-01	303.50	506.00	.3180	.3870	.6485-02	.7891-02	4.651	41.10	560.6
17	.20000-01	296.50	507.00	.2560	.3110	.5215-02	.6345-02	3.743	39.39	560.1
17	.20000-01	287.00	508.00	.1910	.2330	.3905-02	.4743-02	2.824	32.94	554.5
17	.20000-01	278.60	509.00	.1650	.2000	.3372-02	.4080-02	2.484	24.10	541.0
17	.20000-01	270.00	510.00	.1350	.1630	.2753-02	.3327-02	2.038	19.81	537.4
17	.20000-01	262.00	511.00	.1300	.1570	.2647-02	.3199-02	1.961	16.87	536.8
17	.27000-01	350.00	426.00	.2970	.3640	.6064-02	.7419-02	4.239	45.06	578.5
17	.27000-01	343.00	427.00	.3200	.3920	.6535-02	.7993-02	4.577	45.79	577.3
17	.27000-01	335.00	428.00	.3130	.3810	.6388-02	.7780-02	4.562	42.46	563.5
17	.27000-01	324.00	429.00	.3250	.3960	.6633-02	.8078-02	4.738	40.36	563.4
17	.27000-01	320.00	430.00	.3620	.4410	.7388-02	.8995-02	5.285	41.82	562.3
17	.27000-01	310.00	431.00	.3920	.4790	.7997-02	.9759-02	5.658	43.65	570.1
17	.27000-01	295.00	433.00	.2910	.3540	.5940-02	.7210-02	4.310	33.21	552.1
17	.27000-01	287.50	434.00	.2150	.2600	.4388-02	.5310-02	3.226	24.63	542.4
17	.27000-01	280.00	435.00	.1620	.1960	.3312-02	.3999-02	2.460	18.80	534.7
17	.27000-01	273.00	436.00	.1220	.1470	.2485-02	.2999-02	1.852	14.07	532.5
17	.50000-01	352.50	437.00	.2600	.3170	.5307-02	.6465-02	3.785	33.39	564.4

OH103A.AEDC V41B-V2. ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
17	.50000-01	334.00	440.00	.2600	.3170	.5311-02	.6469-02	3.789	34.81	564.3
17	.50000-01	327.50	441.00	.2590	.3160	.5278-02	.6435-02	3.753	34.44	566.7
17	.50000-01	311.00	444.00	.2780	.3390	.5677-02	.6912-02	4.060	33.19	562.5
17	.50000-01	306.00	445.00	.2600	.3160	.5299-02	.6450-02	3.796	32.25	561.3
17	.50000-01	300.00	446.00	.2320	.2820	.4738-02	.5760-02	3.410	30.79	558.0
17	.50000-01	295.00	447.00	.1880	.2280	.3827-02	.4643-02	2.784	27.48	550.2
17	.50000-01	289.00	448.00	.1730	.2090	.3530-02	.4271-02	2.599	20.86	541.4
17	.50000-01	284.00	449.00	.1150	.1390	.2344-02	.2831-02	1.740	15.09	535.3
17	.50000-01	274.00	450.00	.6800-01	.8200-01	.1378-02	.1663-02	1.030	11.66	530.7
17	.20500	346.00	453.00	.1040	.1270	.2128-02	.2590-02	1.526	14.66	560.6
17	.20500	342.00	454.00	.1060	.1290	.2168-02	.2637-02	1.557	14.96	559.5
17	.20500	338.00	455.00	.1070	.1300	.2174-02	.2643-02	1.564	15.05	558.1
17	.20500	333.00	456.00	.1030	.1260	.2106-02	.2563-02	1.508	14.49	561.3
17	.20500	330.00	457.00	.1120	.1360	.2280-02	.2772-02	1.642	15.66	557.6
17	.20500	326.00	458.00	.1110	.1360	.2272-02	.2765-02	1.629	15.00	560.5
17	.20500	320.00	460.00	.1130	.1380	.2308-02	.2807-02	1.657	14.09	559.6
17	.20500	317.00	461.00	.1300	.1590	.2658-02	.3234-02	1.908	15.62	559.7
17	.20500	313.50	462.00	.1360	.1660	.2778-02	.3380-02	1.992	16.30	560.6
17	.20500	310.50	463.00	.1370	.1660	.2788-02	.3394-02	1.996	16.95	561.7
17	.20500	307.00	464.00	.1380	.1680	.2819-02	.3431-02	2.017	17.82	561.9
17	.20500	305.00	465.00	.1430	.1740	.2918-02	.3550-02	2.092	17.57	560.7
17	.20500	303.00	466.00	.1500	.1830	.3065-02	.3730-02	2.199	17.99	560.4
17	.20500	300.50	467.00	.1190	.1440	.2425-02	.2942-02	1.761	14.75	551.4
17	.20500	298.00	468.00	.1350	.1640	.2751-02	.3343-02	1.984	17.57	556.2
17	.20500	295.00	469.00	.1400	.1690	.2846-02	.3454-02	2.064	16.36	552.3
17	.20500	292.00	470.00	.1090	.1320	.2217-02	.2689-02	1.614	15.58	549.9
17	.20500	290.00	471.00	.1020	.1240	.2080-02	.2522-02	1.517	14.67	548.3
17	.20500	287.00	472.00	.7800-01	.9400-01	.1583-02	.1917-02	1.162	12.33	543.7
17	.20500	284.00	473.00	.6500-01	.7900-01	.1334-02	.1611-02	.9920	8.070	534.5
17	.20500	278.00	474.00	.3300-01	.4000-01	.6793-03	.8185-03	.5100	4.980	526.7
17	.20500	275.50	475.00	.3100-01	.3800-01	.6395-03	.7703-03	.4810	4.710	525.2
17	.20500	273.00	476.00	.3600-01	.4300-01	.7262-03	.8746-03	.5470	5.130	524.7
17	.20500	270.00	477.00	.3100-01	.3800-01	.6424-03	.7734-03	.4840	4.310	523.7

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
68	7.930	42.49	90.72	1177.	86.70	.9840-02	.4330	3619.	.3064-03	.6974-07	.4940	.1055-01

RUN NUMBER	STN NO REF(R) =.040
68	.3853-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
68	.20000-01	348.50	501.00	.3510	.4310	.3701-02	.4546-02	2.344	23.74	543.4
68	.20000-01	338.20	502.00	.3360	.4130	.3546-02	.4352-02	2.252	23.92	541.6
68	.20000-01	328.70	503.00	.3760	.4610	.3963-02	.4867-02	2.511	22.38	543.1
68	.20000-01	320.50	504.00	.3960	.4850	.4175-02	.5119-02	2.662	21.24	538.9
68	.20000-01	312.30	505.00	.3580	.4400	.3781-02	.4639-02	2.407	19.90	540.2
68	.20000-01	303.50	506.00	.3280	.4020	.3464-02	.4246-02	2.215	19.80	537.4
68	.20000-01	296.50	507.00	.2650	.3240	.2793-02	.3423-02	1.787	19.02	537.0
68	.20000-01	287.00	508.00	.1990	.2440	.2104-02	.2577-02	1.349	15.88	535.5
68	.20000-01	278.60	509.00	.1690	.2070	.1784-02	.2180-02	1.153	11.25	530.0
68	.20000-01	270.00	510.00	.1390	.1690	.1463-02	.1787-02	.9480	9.250	528.7
68	.20000-01	262.00	511.00	.1340	.1640	.1416-02	.1730-02	.9170	7.920	528.8
68	.27000-01	350.00	426.00	.3060	.3760	.3233-02	.3970-02	2.049	22.17	543.0
68	.27000-01	343.00	427.00	.3270	.4010	.3449-02	.4235-02	2.166	22.25	543.0
68	.27000-01	335.00	428.00	.3140	.3850	.3317-02	.4066-02	2.119	19.98	537.8
68	.27000-01	324.00	429.00	.3240	.3970	.3416-02	.4188-02	2.181	18.81	538.4
68	.27000-01	320.00	430.00	.3700	.4530	.3899-02	.4779-02	2.491	19.95	537.8
68	.27000-01	310.00	431.00	.4060	.4980	.4284-02	.5258-02	2.722	21.30	541.4
68	.27000-01	295.00	433.00	.2940	.3600	.3097-02	.3793-02	1.986	15.43	535.4
68	.27000-01	287.50	434.00	.2160	.2640	.2281-02	.2790-02	1.474	11.32	530.8
68	.27000-01	280.00	435.00	.1610	.1960	.1693-02	.2068-02	1.099	9.420	527.9
68	.27000-01	273.00	436.00	.1240	.1510	.1305-02	.1594-02	.8470	6.450	527.7
68	.50000-01	352.50	437.00	.2620	.3200	.2760-02	.3380-02	1.769	15.83	535.7

OH103A.AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
68	.50000-01	334.00	440.00	.2630	.3210	.2769-02	.3392-02	1.776	16.56	535.4
68	.50000-01	327.50	441.00	.2590	.3170	.2730-02	.3345-02	1.746	16.27	536.9
68	.50000-01	311.00	444.00	.2760	.3390	.2916-02	.3572-02	1.870	15.49	535.6
68	.50000-01	306.00	445.00	.2620	.3210	.2765-02	.3386-02	1.773	15.26	535.3
68	.50000-01	300.00	446.00	.2350	.2880	.2480-02	.3036-02	1.593	14.56	534.1
68	.50000-01	295.00	447.00	.1880	.2300	.1988-02	.2431-02	1.283	12.78	531.3
68	.50000-01	289.00	448.00	.1650	.2020	.1741-02	.2127-02	1.129	9.120	528.2
68	.50000-01	284.00	449.00	.1150	.1400	.1213-02	.1482-02	.7890	6.870	526.7
68	.50000-01	274.00	450.00	.6900-01	.8400-01	.7290-03	.8897-03	.4750	5.390	525.3
68	.20500	345.00	453.00	.1110	.1360	.1170-02	.1432-02	.7530	7.340	532.8
68	.20500	342.00	454.00	.1160	.1410	.1220-02	.1492-02	.7860	7.660	532.1
68	.20500	338.00	455.00	.1160	.1420	.1222-02	.1494-02	.7880	7.680	531.6
68	.20500	333.00	456.00	.1170	.1430	.1229-02	.1504-02	.7910	7.700	533.1
68	.20500	330.00	457.00	.1200	.1470	.1269-02	.1552-02	.8190	7.920	531.4
68	.20500	326.00	458.00	.1200	.1460	.1262-02	.1544-02	.8130	7.590	532.5
68	.20500	320.00	460.00	.1190	.1460	.1257-02	.1538-02	.8100	6.990	532.1
68	.20500	317.00	461.00	.1390	.1700	.1470-02	.1798-02	.9480	7.870	532.0
68	.20500	313.50	462.00	.1440	.1760	.1516-02	.1854-02	.9770	8.110	532.2
68	.20500	310.50	463.00	.1480	.1800	.1556-02	.1904-02	1.004	8.660	531.3
68	.20500	307.00	464.00	.1450	.1770	.1526-02	.1866-02	.9840	8.820	531.9
68	.20500	305.00	465.00	.1520	.1860	.1606-02	.1964-02	1.036	8.830	531.5
68	.20500	303.00	466.00	.1490	.1830	.1576-02	.1927-02	1.016	8.440	531.6
68	.20500	300.50	467.00	.1100	.1340	.1159-02	.1417-02	.7510	6.360	529.2
68	.20500	298.00	468.00	.1370	.1680	.1445-02	.1768-02	.9350	8.390	530.2
68	.20500	295.00	469.00	.1510	.1840	.1588-02	.1941-02	1.027	8.230	529.8
68	.20500	292.00	470.00	.1060	.1300	.1122-02	.1371-02	.7270	7.090	529.1
68	.20500	290.00	471.00	.1070	.1310	.1134-02	.1385-02	.7350	7.170	528.5
68	.20500	287.00	472.00	.8200-01	.1000+00	.8607-03	.1051-02	.5580	5.970	527.9
68	.20500	284.00	473.00	.6700-01	.8200-01	.7116-03	.8684-03	.4640	3.790	525.0
68	.20500	278.00	474.00	.3500-01	.4300-01	.3734-03	.4553-03	.2440	2.390	522.5
68	.20500	275.50	475.00	.3300-01	.4000-01	.3447-03	.4202-03	.2260	2.210	521.5
68	.20500	273.00	476.00	.3800-01	.4700-01	.4036-03	.4920-03	.2640	2.480	521.7
68	.20500	270.00	477.00	.3500-01	.4200-01	.3643-03	.4440-03	.2390	2.130	521.3

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
66	7.970	42.51	166.1	1226.	89.40	.1740-01	.7750	3695.	.5261-03	.7197-07	.8390	.1421-01

RUN NUMBER	STN NO REF(R) =.040
66	.2953-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
66	.20000-01	348.50	501.00	.3450	.4220	.4908-02	.6003-02	3.300	33.26	553.4
66	.20000-01	338.20	502.00	.3320	.4060	.4722-02	.5769-02	3.190	33.73	550.2
66	.20000-01	328.70	503.00	.3730	.4560	.5299-02	.6476-02	3.571	31.70	551.7
66	.20000-01	320.50	504.00	.3910	.4770	.5560-02	.6781-02	3.784	30.09	545.0
66	.20000-01	312.30	505.00	.3620	.4420	.5147-02	.6281-02	3.495	28.80	546.6
66	.20000-01	303.50	506.00	.3240	.3940	.4598-02	.5603-02	3.143	28.03	542.2
66	.20000-01	296.50	507.00	.2670	.3250	.3797-02	.4626-02	2.598	27.59	541.5
66	.20000-01	287.00	508.00	.1980	.2410	.2821-02	.3432-02	1.943	22.86	537.0
66	.20000-01	278.60	509.00	.1640	.1990	.2327-02	.2825-02	1.619	15.79	530.0
66	.20000-01	270.00	510.00	.1360	.1650	.1937-02	.2349-02	1.352	13.20	527.6
66	.20000-01	262.00	511.00	.1320	.1600	.1876-02	.2275-02	1.313	11.35	526.0
66	.27000-01	350.00	426.00	.3140	.3840	.4461-02	.5453-02	3.004	32.36	552.2
66	.27000-01	343.00	427.00	.3220	.3940	.4580-02	.5598-02	3.085	31.26	552.0
66	.27000-01	335.00	428.00	.3110	.3790	.4422-02	.5391-02	3.014	28.33	544.0
66	.27000-01	324.00	429.00	.3220	.3920	.4570-02	.5573-02	3.113	26.77	544.4
66	.27000-01	320.00	430.00	.3650	.4440	.5183-02	.6318-02	3.535	28.23	543.6
66	.27000-01	310.00	431.00	.3970	.4850	.5647-02	.6895-02	3.823	29.81	548.7
66	.27000-01	295.00	433.00	.2880	.3500	.4093-02	.4980-02	2.816	21.86	537.6
66	.27000-01	287.50	434.00	.2140	.2600	.3047-02	.3700-02	2.118	16.27	530.7
66	.27000-01	280.00	435.00	.1580	.1920	.2251-02	.2730-02	1.573	12.06	527.0
66	.27000-01	273.00	436.00	.1160	.1400	.1643-02	.1991-02	1.151	8.780	524.9
66	.50000-01	352.50	437.00	.2580	.3140	.3660-02	.4461-02	2.500	22.30	542.6

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
66	.50000-01	334.00	440.00	.2600	.3170	.3694-02	.4504-02	2.519	23.39	543.7
66	.50000-01	327.50	441.00	.2600	.3170	.3691-02	.4503-02	2.509	23.27	546.0
66	.50000-01	311.00	444.00	.2780	.3390	.3953-02	.4816-02	2.703	22.33	541.8
66	.50000-01	306.00	445.00	.2560	.3120	.3639-02	.4434-02	2.489	21.36	541.6
66	.50000-01	300.00	446.00	.2260	.2760	.3218-02	.3918-02	2.208	20.12	539.6
66	.50000-01	295.00	447.00	.1860	.2260	.2637-02	.3206-02	1.821	18.12	535.1
66	.50000-01	289.00	448.00	.1700	.2070	.2420-02	.2939-02	1.680	13.55	531.3
66	.50000-01	284.00	449.00	.1120	.1350	.1587-02	.1925-02	1.109	9.660	527.1
66	.50000-01	274.00	450.00	.6600-01	.8000-01	.9431-03	.1143-02	.6600	7.500	525.4
66	.20500	346.00	453.00	.1130	.1380	.1612-02	.1964-02	1.102	10.68	542.1
66	.20500	342.00	454.00	.1100	.1330	.1557-02	.1897-02	1.065	10.33	541.5
66	.20500	338.00	455.00	.1110	.1350	.1571-02	.1913-02	1.076	10.44	540.6
66	.20500	333.00	456.00	.1180	.1440	.1675-02	.2042-02	1.144	11.09	542.8
66	.20500	330.00	457.00	.1160	.1410	.1642-02	.2000-02	1.124	10.81	540.9
66	.20500	326.00	458.00	.1150	.1400	.1635-02	.1992-02	1.118	10.38	542.2
66	.20500	320.00	460.00	.1370	.1670	.1953-02	.2379-02	1.335	11.46	541.8
66	.20500	317.00	461.00	.1340	.1640	.1910-02	.2327-02	1.307	10.80	541.2
66	.20500	313.50	462.00	.1390	.1700	.1981-02	.2413-02	1.355	11.20	541.5
66	.20500	310.50	463.00	.1380	.1680	.1963-02	.2392-02	1.342	11.51	541.8
66	.20500	307.00	464.00	.1410	.1720	.2004-02	.2443-02	1.369	12.21	542.6
66	.20500	305.00	465.00	.1510	.1840	.2146-02	.2615-02	1.467	12.44	541.9
66	.20500	303.00	466.00	.1500	.1830	.2131-02	.2596-02	1.457	12.03	542.0
66	.20500	300.50	467.00	.1340	.1630	.1902-02	.2313-02	1.312	11.07	536.0
66	.20500	298.00	468.00	.1330	.1610	.1685-02	.2295-02	1.293	11.55	539.6
66	.20500	295.00	469.00	.1340	.1640	.1911-02	.2326-02	1.314	10.49	538.2
66	.20500	292.00	470.00	.1020	.1240	.1451-02	.1765-02	1.002	9.740	535.6
66	.20500	290.00	471.00	.1000+00	.1220	.1421-02	.1728-02	.9790	9.520	536.4
66	.20500	287.00	472.00	.6600-01	.8000-01	.9364-03	.1138-02	.6470	6.890	534.8
66	.20500	284.00	473.00	.6400-01	.7800-01	.9081-03	.1102-02	.6330	5.170	528.7
66	.20500	278.00	474.00	.3600-01	.4300-01	.5101-03	.6181-03	.3580	3.500	524.3
66	.20500	275.50	475.00	.2800-01	.3400-01	.3955-03	.4791-03	.2780	2.720	523.3
66	.20500	273.00	476.00	.2700-01	.3200-01	.3785-03	.4584-03	.2660	2.500	522.0
66	.20500	270.00	477.00	.2900-01	.3600-01	.4174-03	.5052-03	.2940	2.620	520.8

ORB FUS (X-SECT)

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMEER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
74	7.970	42.53	333.8	1275.	93.00	.3500-01	1.558	3768.	.1017-02	.7485-07	1.590	.2029-01

RUN NUMBER	STN NO REF(R) =.040
74	.2133-01

TEST DATA

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
74	.20000-01	348.50	501.00	.3430	.4200	.6958-02	.8522-02	4.831	48.05	580.3
74	.20000-01	338.20	502.00	.3310	.4050	.6713-02	.8206-02	4.702	49.13	574.2
74	.20000-01	328.70	503.00	.3720	.4540	.7538-02	.9216-02	5.275	46.29	574.8
74	.20000-01	320.50	504.00	.3910	.4770	.7935-02	.9669-02	5.638	44.41	564.1
74	.20000-01	312.30	505.00	.3550	.4320	.7192-02	.8770-02	5.096	41.58	566.1
74	.20000-01	303.50	506.00	.3240	.3940	.6565-02	.7989-02	4.694	41.50	559.7
74	.20000-01	296.50	507.00	.2660	.3230	.5390-02	.6558-02	3.858	40.62	559.0
74	.20000-01	287.00	508.00	.1950	.2370	.3951-02	.4802-02	2.843	33.15	555.1
74	.20000-01	278.60	509.00	.1660	.2020	.3375-02	.4088-02	2.468	23.91	543.6
74	.20000-01	270.00	510.00	.1350	.1630	.2739-02	.3315-02	2.009	19.48	541.2
74	.20000-01	262.00	511.00	.1320	.1590	.2670-02	.3232-02	1.957	16.79	541.7
74	.27000-01	350.00	426.00	.3140	.3840	.6374-02	.7798-02	4.449	47.33	576.7
74	.27000-01	343.00	427.00	.3240	.3960	.6568-02	.8031-02	4.596	46.03	575.0
74	.27000-01	335.00	428.00	.3150	.3830	.6388-02	.7779-02	4.553	42.42	561.8
74	.27000-01	324.00	429.00	.3280	.3990	.6644-02	.8090-02	4.739	40.40	561.5
74	.27000-01	320.00	430.00	.3660	.4460	.7429-02	.9042-02	5.309	42.05	560.0
74	.27000-01	310.00	431.00	.4020	.4900	.8154-02	.9947-02	5.766	44.54	567.5
74	.27000-01	295.00	433.00	.2930	.3550	.5935-02	.7205-02	4.292	33.07	551.6
74	.27000-01	287.50	434.00	.2160	.2620	.4386-02	.5312-02	3.207	24.47	543.5
74	.27000-01	280.00	435.00	.1610	.1950	.3265-02	.3947-02	2.408	18.37	537.2
74	.27000-01	273.00	436.00	.1230	.1490	.2503-02	.3025-02	1.849	14.02	536.1
74	.50000-01	352.50	437.00	.2600	.3170	.5282-02	.6434-02	3.761	33.20	562.7

OH103A,AEDC V41B-V2, ORB FUS (X-SECTIONAL)

RUN NUMBER	X/L	THETA	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
74	.50000-01	334.00	440.00	.2630	.3210	.5341-02	.6504-02	3.809	35.05	561.5
74	.50000-01	327.50	441.00	.2620	.3200	.5322-02	.6485-02	3.783	34.76	563.9
74	.50000-01	311.00	444.00	.2730	.3330	.5544-02	.6748-02	3.962	32.43	560.1
74	.50000-01	306.00	445.00	.2610	.3180	.5299-02	.6448-02	3.791	32.23	559.3
74	.50000-01	300.00	446.00	.2310	.2810	.4691-02	.5703-02	3.370	30.45	556.3
74	.50000-01	295.00	447.00	.1890	.2300	.3838-02	.4656-02	2.785	27.51	549.0
74	.50000-01	289.00	448.00	.1670	.2020	.3388-02	.4100-02	2.485	19.94	541.3
74	.50000-01	284.00	449.00	.1120	.1360	.2280-02	.2755-02	1.685	14.61	535.6
74	.50000-01	274.00	450.00	.6800-01	.8200-01	.1381-02	.1667-02	1.026	11.61	531.8
74	.20500	346.00	453.00	.1110	.1350	.2255-02	.2743-02	1.615	15.53	558.5
74	.20500	342.00	454.00	.1100	.1330	.2225-02	.2706-02	1.594	15.33	558.1
74	.20500	338.00	455.00	.1110	.1350	.2254-02	.2741-02	1.618	15.57	556.7
74	.20500	333.00	456.00	.1150	.1400	.2337-02	.2843-02	1.672	16.07	559.3
74	.20500	330.00	457.00	.1150	.1400	.2341-02	.2847-02	1.679	16.01	557.5
74	.20500	326.00	458.00	.1190	.1450	.2421-02	.2946-02	1.733	15.96	559.1
74	.20500	320.00	460.00	.1270	.1540	.2574-02	.3130-02	1.846	15.71	557.6
74	.20500	317.00	461.00	.1350	.1650	.2744-02	.3337-02	1.968	16.13	557.6
74	.20500	313.50	462.00	.1390	.1690	.2816-02	.3426-02	2.018	16.53	558.2
74	.20500	310.50	463.00	.1400	.1700	.2831-02	.3442-02	2.034	17.32	556.3
74	.20500	307.00	464.00	.1380	.1680	.2807-02	.3416-02	2.010	17.78	558.7
74	.20500	305.00	465.00	.1470	.1790	.2988-02	.3634-02	2.143	18.03	557.5
74	.20500	303.00	466.00	.1530	.1860	.3095-02	.3763-02	2.221	18.21	557.0
74	.20500	300.50	467.00	.1260	.1530	.2558-02	.3103-02	1.857	15.57	548.8
74	.20500	298.00	468.00	.1330	.1610	.2689-02	.3266-02	1.940	17.21	553.1
74	.20500	295.00	469.00	.1450	.1760	.2935-02	.3564-02	2.122	16.82	551.6
74	.20500	292.00	470.00	.1030	.1250	.2091-02	.2536-02	1.521	14.70	547.5
74	.20500	290.00	471.00	.1010	.1220	.2047-02	.2482-02	1.488	14.39	547.6
74	.20500	287.00	472.00	.7500-01	.9100-01	.1530-02	.1852-02	1.119	11.88	542.8
74	.20500	284.00	473.00	.6800-01	.8200-01	.1385-02	.1672-02	1.028	8.370	532.5
74	.20500	278.00	474.00	.3400-01	.4100-01	.6963-03	.8392-03	.5210	5.100	526.0
74	.20500	275.50	475.00	.4200-01	.5100-01	.8565-03	.1031-02	.6430	6.300	523.5
74	.20500	273.00	476.00	.3400-01	.4100-01	.6849-03	.8249-03	.5140	4.820	524.1
74	.20500	270.00	477.00	.3000-01	.3600-01	.6113-03	.7362-03	.4590	4.090	523.4

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
45	.00000	1.7000	856.00	.9000-02	.1000-01	.8903-04	.1083-03	.5900-01	.4400	518.0
45	.00000	2.1300	855.00	.1300-01	.1600-01	.1370-03	.1668-03	.9100-01	.6700	519.0
45	90.000	.51000	868.00	.9000-02	.1100-01	.9348-04	.1137-03	.6200-01	.4600	517.7
45	90.000	1.1400	867.00	.1500-01	.1900-01	.1614-03	.1964-03	.1070	.7900	518.5
45	270.00	4.0000	852.00	.6000-02	.7000-02	.5831-04	.7092-04	.3900-01	.3200	516.9
45	270.00	4.8300	854.00	.2200-01	.2700-01	.2305-03	.2805-03	.1530	1.110	518.6

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	1.7000	856.00	.8000-02	.9000-02	.1121-03	.1355-03	.8000-01	.5900	520.0
48	.00000	2.1300	855.00	.1200-01	.1400-01	.1665-03	.2013-03	.1190	.8800	521.2
48	90.000	.51000	868.00	.1100-01	.1400-01	.1622-03	.1960-03	.1160	.8600	520.5
48	90.000	1.1400	867.00	.1800-01	.2100-01	.2535-03	.3064-03	.1820	1.340	520.8
48	270.00	.00000	869.00	.6000-02	.7000-02	.8023-04	.9694-04	.5800-01	.4000	519.5
48	270.00	.48000	870.00	.7000-02	.8000-02	.9726-04	.1175-03	.7000-01	.4500	519.8
48	270.00	1.9900	871.00	.4000-02	.4000-02	.5069-04	.6124-04	.3600-01	.2700	519.3
48	270.00	3.1300	850.00	.2000-02	.2000-02	.2799-04	.3381-04	.2000-01	.1600	518.3
48	270.00	3.5500	851.00	.2000-02	.3000-02	.3422-04	.4134-04	.2500-01	.2000	518.6
48	270.00	4.0000	852.00	.4000-02	.5000-02	.5682-04	.6864-04	.4100-01	.3400	518.9
48	270.00	4.8300	854.00	.1900-01	.2300-01	.2783-03	.3364-03	.1990	1.450	521.1

OH103A,AEDC V418-V2. CTR FWD FIRING NOZZLE

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	1.7000	856.00	.9000-02	.1100-01	.1928-03	.2325-03	.1430	1.050	523.2
71	.00000	2.1300	855.00	.1200-01	.1400-01	.2377-03	.2867-03	.1760	1.300	523.4
71	90.000	.51000	868.00	.1700-01	.2100-01	.3493-03	.4214-03	.2580	1.910	524.9
71	90.000	1.1400	867.00	.2400-01	.2900-01	.4929-03	.5947-03	.3640	2.680	525.1
71	270.00	.00000	869.00	.1500-01	.1800-01	.3023-03	.3647-03	.2230	1.560	524.7
71	270.00	.48000	870.00	.1800-01	.2200-01	.3662-03	.4418-03	.2700	1.730	525.1
71	270.00	1.9900	871.00	.9000-02	.1100-01	.1820-03	.2195-03	.1350	1.000	523.8
71	270.00	3.1300	850.00	.4000-02	.5000-02	.8261-04	.9957-04	.6100-01	.4900	521.7
71	270.00	3.5500	851.00	.4000-02	.5000-02	.8117-04	.9783-04	.6000-01	.4800	521.8
71	270.00	4.0000	852.00	.5000-02	.6000-02	.9859-04	.1188-03	.7300-01	.6100	521.8
71	270.00	4.8300	854.00	.1700-01	.2100-01	.3492-03	.4211-03	.2590	1.080	523.1

OH103A,AEDC V41B-V2, CTR FWD FIRING NOZZLE (R4HC02)

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	.00000	1.7000	856.00	.9000-02	.1000-01	.8898-04	.1084-03	.5900-01	.4300	523.8
22	.00000	2.1300	855.00	.1400-01	.1700-01	.1462-03	.1782-03	.9700-01	.7100	524.7
22	90.000	.51000	838.00	.9000-02	.1100-01	.9788-04	.1192-03	.6500-01	.4800	523.9
22	90.000	1.1400	867.00	.1600-01	.2000-01	.1696-03	.2066-03	.1120	.8300	524.5
22	270.00	1.9900	871.00	.4000-02	.5000-02	.3957-04	.4820-04	.2600-01	.1900	523.6
22	270.00	3.5500	851.00	.4000-02	.5000-02	.4180-04	.5090-04	.2800-01	.2200	522.8
22	270.00	4.0000	852.00	.7000-02	.8000-02	.6821-04	.8306-04	.4500-01	.3800	523.0
22	270.00	4.8300	854.00	.2500-01	.3100-01	.2651-03	.3230-03	.1750	1.270	524.8

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	1.7000	856.00	.1100-01	.1300-01	.2182-03	.2622-03	.1660	1.230	516.0
3	.00000	2.1300	855.00	.1400-01	.1600-01	.2759-03	.3315-03	.2100	1.560	516.3
3	90.000	.51000	868.00	.1800-01	.2100-01	.3607-03	.4335-03	.2740	2.040	516.7
3	90.000	1.1400	867.00	.2500-01	.3000-01	.5032-03	.6050-03	.3820	2.820	517.8
3	270.00	.00000	869.00	.1700-01	.2000-01	.3430-03	.4122-03	.2610	1.830	516.7
3	270.00	.48000	870.00	.2000-01	.2400-01	.4156-03	.4996-03	.3160	2.030	517.2
3	270.00	1.9900	871.00	.1100-01	.1300-01	.2218-03	.2664-03	.1690	1.260	515.4
3	270.00	3.1300	850.00	.6000-02	.7000-02	.1144-03	.1374-03	.8700-01	.7100	514.5
3	270.00	3.5500	851.00	.6000-02	.7000-02	.1136-03	.1364-03	.8700-01	.7000	514.5
3	270.00	4.0000	852.00	.6000-02	.8000-02	.1279-03	.1536-03	.9800-01	.8200	514.6
3	270.00	4.8300	854.00	.1800-01	.2200-01	.3722-03	.4472-03	.2849	2.070	515.7

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	1.7000	856.00	.7000-02	.9000-02	.7701-04	.9372-04	.5100-01	.3800	517.5
44	.00000	2.1300	855.00	.1200-01	.1400-01	.1238-03	.1507-03	.8200-01	.6000	518.4
44	90.000	.51000	868.00	.7000-02	.8000-02	.7018-04	.8540-04	.4600-01	.3400	516.8
44	90.000	1.1400	867.00	.1100-01	.1300-01	.1133-03	.1379-03	.7500-01	.5500	517.3
44	270.00	3.5500	851.00	.4000-02	.4000-02	.3753-04	.4566-04	.2500-01	.2000	516.3
44	270.00	4.0000	852.00	.6000-02	.7000-02	.6003-04	.7303-04	.4000-01	.3300	516.4
44	270.00	4.8300	854.00	.2000-01	.2400-01	.2070-03	.2520-03	.1370	1.000	517.6

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	1.7000	856.00	.6000-02	.8000-02	.9083-04	.1100-03	.6400-01	.4700	519.4
51	.00000	2.1300	855.00	.1100-01	.1300-01	.1509-03	.1827-03	.1060	.7800	520.5
51	90.000	.51000	868.00	.7000-02	.8000-02	.9913-04	.1200-03	.7000-01	.5200	519.4
51	90.000	1.1400	867.00	.1200-01	.1400-01	.1712-03	.2073-03	.1200	.8900	520.0
51	270.00	.00000	869.00	.2000-02	.2000-02	.2635-04	.3189-04	.1900-01	.1300	518.8
51	270.00	.48000	870.00	.3000-02	.3000-02	.3934-04	.4762-04	.2800-01	.1800	518.9
51	270.00	1.9900	871.00	.2000-02	.2000-02	.2401-04	.2906-04	.1700-01	.1300	518.8
51	270.00	3.5500	851.00	.2000-02	.2000-02	.2454-04	.2969-04	.1700-01	.1400	518.0
51	270.00	4.0000	852.00	.3000-02	.4000-02	.4657-04	.5636-04	.3300-01	.2700	518.1
51	270.00	4.8300	854.00	.1500-01	.1900-01	.2193-03	.2655-03	.1540	1.120	520.0

OH103A,AEDC V41B-V2, CTR FWD FIRING NOZZLE (R4HC03)

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	1.7000	856.00	.7000-02	.8000-02	.1391-03	.1675-03	.1050	.7700	521.0
72	.00000	2.1300	855.00	.1100-01	.1400-01	.2321-03	.2795-03	.1740	1.290	521.8
72	90.000	.51000	868.00	.1200-01	.1400-01	.2352-03	.2832-03	.1770	1.310	521.4
72	90.000	1.1400	867.00	.1600-01	.2000-01	.3342-03	.4025-03	.2510	1.850	522.2
72	270.00	.00000	869.00	.8000-02	.9000-02	.1542-03	.1857-03	.1160	.8100	521.5
72	270.00	.48000	870.00	.7000-02	.9000-02	.1517-03	.1826-03	.1140	.7300	521.3
72	270.00	1.9900	871.00	.4000-02	.5000-02	.7954-04	.9574-04	.6000-01	.4500	520.4
72	270.00	3.1300	850.00	.2000-02	.3000-02	.4860-04	.5848-04	.3700-01	.3000	519.2
72	270.00	3.5500	851.00	.3000-02	.3000-02	.5509-04	.6629-04	.4100-01	.3300	519.4
72	270.00	4.0000	852.00	.4000-02	.5000-02	.7651-04	.9207-04	.5800-01	.4800	519.6
72	270.00	4.8300	854.00	.1500-01	.1800-01	.3062-03	.3687-03	.2300	1.670	521.4

OH103A,AEDC "418-V2, CTR FWD FIRING NOZZLE (R4HC04)

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	Tw DEG. R
25	.00000	1.7000	856.00	.7000-02	.8000-02	.6839-04	.8306-04	.4700-01	.3400	520.6
25	.00000	2.1300	855.00	.1100-01	.1400-01	.1175-03	.1427-03	.8000-01	.5900	521.5
25	90.000	.51000	868.00	.4000-02	.5000-02	.4725-04	.5738-04	.3200-01	.2400	520.3
25	90.000	1.1400	867.00	.1000-01	.1200-01	.1004-03	.1220-03	.6800-01	.5000	520.7
25	270.00	4.0000	852.00	.5000-02	.6000-02	.4963-04	.6024-04	.3400-01	.2800	519.4
25	270.00	4.8300	854.00	.1700-01	.2100-01	.1829-03	.2222-03	.1240	.9000	521.3

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT Y 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	1.7000	856.00	.7000-02	.8000-02	.1418-03	.1709-03	.1060	.7800	525.1
7	.00000	2.1300	855.00	.1000-01	.1300-01	.2118-03	.2553-03	.1590	1.170	525.8
7	90.000	.51000	868.00	.1000-01	.1200-01	.2082-03	.2509-03	.1560	1.150	525.8
7	90.000	1.1400	867.00	.1500-01	.1900-01	.3151-03	.3798-03	.2360	1.730	526.4
7	270.00	.00000	869.00	.8000-02	.9000-02	.1604-03	.1933-03	.1200	.8400	525.9
7	270.00	.48000	870.00	.8000-02	.1000-01	.1663-03	.2004-03	.1250	.8000	525.8
7	270.00	1.9900	871.00	.4000-02	.5000-02	.8448-04	.1018-03	.6300-01	.4700	525.0
7	270.00	3.1300	850.00	.2000-02	.3000-02	.4662-04	.5615-04	.3500-01	.2800	524.1
7	270.00	3.5500	851.00	.3000-02	.3000-02	.5447-04	.6561-04	.4100-01	.3300	524.3
7	270.00	4.0000	852.00	.4000-02	.5000-02	.7852-04	.9459-04	.5900-01	.4900	524.7
7	270.00	4.8300	854.00	.1400-01	.1700-01	.2838-03	.3422-03	.2120	1.540	527.4

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	.00000	1.7000	856.00	.6000-02	.7000-02	.5970-04	.7245-04	.4100-01	.3000	520.4
28	.00000	2.1300	855.00	.1100-01	.1300-01	.1097-03	.1331-03	.7500-01	.5500	521.3
28	90.000	1.1400	867.00	.8000-02	.9000-02	.7979-04	.9681-04	.5500-01	.4000	519.9
28	270.00	4.0000	852.00	.4000-02	.5000-02	.4615-04	.5599-04	.3200-01	.2600	519.6
28	270.00	4.8300	854.00	.1500-01	.1900-01	.1593-03	.1934-03	.1090	.7900	521.8

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(P) =.040
54	.2936-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	.00000	1.7000	856.00	.5000-02	.6000-02	.7085-04	.8566-04	.5000-01	.3700	519.1
54	.00000	2.1300	855.00	.1000-01	.1100-01	.1359-03	.1644-03	.9600-01	.7100	519.9
54	90.000	.51000	868.00	.4000-02	.5000-02	.5371-04	.6497-04	.3800-01	.2800	519.1
54	90.000	1.1400	867.00	.8000-02	.1000-01	.1133-03	.1371-03	.8000-01	.5900	519.4
54	270.00	4.0000	852.00	.3000-02	.4000-02	.4164-04	.5036-04	.3000-01	.2500	517.6
54	270.00	4.8300	854.00	.1300-01	.1500-01	.1827-03	.2210-03	.1290	.9400	519.0

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
73	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	1.7000	856.00	.6000-02	.7000-02	.1144-03	.1376-03	.8700-01	.6400	520.9
73	.00000	2.1300	855.00	.1000-01	.1300-01	.2123-03	.2555-03	.1600	1.190	521.8
73	90.000	.51000	868.00	.7000-02	.8000-02	.1422-03	.1711-03	.1080	.8000	520.9
73	90.000	1.1400	867.00	.1100-01	.1400-01	.2299-03	.2767-03	.1740	1.280	521.0
73	270.00	.00000	869.00	.4000-02	.4000-02	.7536-04	.9065-04	.5700-01	.4000	520.2
73	270.00	.48000	870.00	.4000-02	.5000-02	.9054-04	.1089-03	.6900-01	.4400	520.2
73	270.00	1.9900	871.00	.3000-02	.3000-02	.5475-04	.6585-04	.4100-01	.3100	520.0
73	270.00	3.1300	850.00	.2000-02	.2000-02	.3482-04	.4188-04	.2600-01	.2100	519.2
73	270.00	3.5500	851.00	.2000-02	.2000-02	.4145-04	.4985-04	.3100-01	.2500	519.5
73	270.00	4.0000	852.00	.3000-02	.4000-02	.5985-04	.7199-04	.4500-01	.3800	519.7
73	270.00	4.8300	854.00	.1100-01	.1400-01	.2331-03	.2805-03	.1760	1.280	521.4

OH103A,AEDC V418-V2, CTR FWD FIRING NOZZLE (R4HC06)

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	.00000	1.7000	856.00	.7000-02	.8000-02	.6946-04	.8453-04	.4600-01	.3400	519.5
40	.00000	2.1300	855.00	.1100-01	.1300-01	.1144-03	.1393-03	.7600-01	.5600	520.4
40	90.000	.51000	868.00	.4000-02	.5000-02	.4670-04	.5682-04	.3100-01	.2300	518.6
40	90.000	1.1400	867.00	.8000-02	.1000-01	.8735-04	.1063-03	.5800-01	.4300	519.0
40	270.00	3.5500	851.00	.4000-02	.4000-02	.3836-04	.4667-04	.2500-01	.2100	518.5
40	270.00	4.0000	852.00	.5000-02	.6000-02	.5450-04	.6631-04	.3600-01	.3000	518.7
40	270.00	4.8300	854.00	.1500-01	.1800-01	.1568-03	.1908-03	.1040	.7600	520.4

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.102?-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10	.2123-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
10	.00000	1.7000	856.00	.6000-02	.7000-02	.1233-03	.1486-03	.9300-01	.6800	524.9
10	.00000	2.1300	855.00	.1100-01	.1300-01	.2274-03	.2740-03	.1710	1.260	525.9
10	90.000	.51000	868.00	.7000-02	.9000-02	.1496-03	.1802-03	.1130	.8300	525.0
10	90.000	1.1400	867.00	.1200-01	.1500-01	.2465-03	.2970-03	.1860	1.360	525.1
10	270.00	.00000	869.00	.4000-02	.4000-02	.7623-04	.9180-04	.5700-01	.4000	524.3
10	270.00	.48000	870.00	.5000-02	.6000-02	.9369-04	.1128-03	.7100-01	.4500	524.5
10	270.00	1.9900	871.00	.3000-02	.3000-02	.5337-04	.6427-04	.4000-01	.3000	524.2
10	270.00	3.1300	850.00	.2000-02	.2000-02	.3456-04	.4161-04	.2600-01	.2100	523.6
10	270.00	3.5500	851.00	.2000-02	.2000-02	.4104-04	.4942-04	.3100-01	.2500	524.0
10	270.00	4.0000	852.00	.3000-02	.4000-02	.6331-04	.7624-04	.4800-01	.4000	524.4
10	270.00	4.8300	854.00	.1300-01	.1500-01	.2599-03	.3133-03	.1950	1.410	527.3

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
31	7.880	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	.00000	1.7000	856.00	.5000-02	.6000-02	.4773-04	.5791-04	.3300-01	.2400	519.3
31	.00000	2.1300	855.00	.9000-02	.1100-01	.9176-04	.1114-03	.6300-01	.4600	520.3
31	90.000	1.1400	867.00	.5000-02	.7000-02	.5675-04	.6884-04	.3900-01	.2900	518.7
31	270.00	4.0000	852.00	.3000-02	.4000-02	.3049-04	.3698-04	.2100-01	.1700	518.6
31	270.00	4.8300	854.00	.1200-01	.1500-01	.1279-03	.1553-03	.8700-01	.6400	520.7

OH103A,AEDC V41B-V2, CTR FWD FIRING NOZZLE (R4HC07)

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	.00000	1.7000	856.00	.5000-02	.6000-02	.6739-04	.8152-04	.4700-01	.3500	516.3
58	.00000	2.1300	855.00	.8000-02	.1000-01	.1173-03	.1419-03	.8200-01	.6100	517.3
58	90.000	.51000	868.00	.3000-02	.4000-02	.4986-04	.6031-04	.3500-01	.2600	515.9
58	90.000	1.1400	867.00	.7000-02	.8000-02	.9904-04	.1198-03	.7000-01	.5200	516.4
58	270.00	4.0000	852.00	.2000-02	.3000-02	.3447-04	.4169-04	.2400-01	.2000	515.4
58	270.00	4.8300	854.00	.1100-01	.1300-01	.1532-03	.1854-03	.1080	.7900	517.0

OH103A,AEDC V41B-V2. CTR FWD FIRING NOZZLE

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	1.7000	856.00	.5000-02	.7000-02	.1122-03	.1351-03	.8500-01	.6200	525.3
13	.00000	2.1300	855.00	.1000-01	.1200-01	.2055-03	.2475-03	.1550	1.140	526.3
13	90.000	.51000	868.00	.6000-02	.7000-02	.1177-03	.1417-03	.8900-01	.6600	525.1
13	90.000	1.1400	867.00	.1000-01	.1200-01	.1967-03	.2369-03	.1480	1.090	525.2
13	270.00	.00000	869.00	.2000-02	.3000-02	.4713-04	.5676-04	.3600-01	.2500	524.6
13	270.00	.48000	870.00	.3000-02	.4000-02	.6527-04	.7860-04	.4900-01	.3200	524.7
13	270.00	1.9900	871.00	.2000-02	.2000-02	.3629-04	.4369-04	.2700-01	.2000	524.0
13	270.00	3.1300	850.00	.2000-02	.2000-02	.3140-04	.3781-04	.2400-01	.1900	523.7
13	270.00	3.5500	851.00	.2000-02	.2000-02	.3598-04	.4332-04	.2700-01	.2200	524.0
13	270.00	4.0000	852.00	.3000-02	.3000-02	.5775-04	.6954-04	.4400-01	.3600	524.4
13	270.00	4.8300	854.00	.1100-01	.1300-01	.2234-03	.2692-03	.1680	1.220	527.0

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	.00000	1.7000	856.00	.5000-02	.6000-02	.5426-04	.6605-04	.3600-01	.2600	518.3
43	.00000	2.1300	855.00	.9000-02	.1100-01	.9591-04	.1168-03	.6300-01	.4700	519.1
43	90.000	.51000	868.00	.2000-02	.3000-02	.2562-04	.3118-04	.1700-01	.1300	517.5
43	90.000	1.1400	867.00	.6000-02	.7000-02	.6033-04	.7343-04	.4000-01	.2900	517.7
43	270.00	3.5500	851.00	.2000-02	.2000-02	.2096-04	.2551-04	.1400-01	.1100	517.3
43	270.00	4.0000	852.00	.4000-02	.5000-02	.3943-04	.4798-04	.2600-01	.2200	517.4
43	270.00	4.8300	854.00	.1300-01	.1500-01	.1324-03	.1612-03	.8700-01	.6300	518.9

OH103A,AEDC V41B-V2, CTR FWD FIRING NOZZLE

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

TEST DATA

RUN NUMBER	THETA	L/LN	I/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	270.00	4.8300	854.00	.1200-01	.1500-01	.1250-03	.1518-03	.8500-01	.6200	519.2

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	1.7000	856.00	.4000-02	.5000-02	.5565-04	.6732-04	.3900-01	.2900	517.1
61	.00000	2.1300	855.00	.8000-02	.9000-02	.1080-03	.1307-03	.7600-01	.5600	518.1
61	90.000	.51000	868.00	.3000-02	.3000-02	.4082-04	.4936-04	.2900-01	.2100	516.4
61	90.000	1.1400	867.00	.6000-02	.7000-02	.8827-04	.1068-03	.6200-01	.4600	516.8
61	270.00	4.0000	852.00	.2000-02	.3000-02	.3266-04	.3950-04	.2300-01	.1900	516.2
61	270.00	4.8300	854.00	.9000-02	.1100-01	.1354-03	.1638-03	.9500-01	.6900	518.0

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	1.7000	856.00	.5000-02	.5000-02	.9217-04	.1109-03	.7000-01	.5200	521.4
16	.00000	2.1300	855.00	.8000-02	.1000-01	.1728-03	.2079-03	.1310	.9700	522.7
16	90.000	.51000	868.00	.5000-02	.5000-02	.9223-04	.1109-03	.7000-01	.5200	520.9
16	90.000	1.1400	867.00	.8000-02	.9000-02	.1552-03	.1867-03	.1180	.8700	521.5
16	270.00	.48000	870.00	.3000-02	.3000-02	.5231-04	.6291-04	.4000-01	.2600	520.5
16	270.00	1.9900	871.00	.2000-02	.2000-02	.3545-04	.4262-04	.2700-01	.2000	519.9
16	270.00	3.5500	851.00	.2000-02	.2000-02	.3334-04	.4009-04	.2500-01	.2000	519.9
16	270.00	4.0000	852.00	.2000-02	.3000-02	.4978-04	.5986-04	.3800-01	.3200	520.2
16	270.00	4.8300	854.00	.9000-02	.1100-01	.1800-03	.2166-03	.1370	.9900	521.8

DATE 07 DEC 78

OH103A ORBITER MODEL 83-0 HEATING DATA

(R4HC10)

OH103A,AEDC V41B-V2, CTR FWD FIRING NOZZLE

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	1.7000	856.00	.1000-01	.1200-01	.1054-03	.1281-03	.7100-01	.5200	519.5
37	.00000	2.1300	855.00	.1000-01	.1200-01	.9985-04	.1214-03	.6700-01	.5000	520.1
37	90.000	.51000	868.00	.2300-01	.2800-01	.2380-03	.2893-03	.1600	1.190	519.2
37	90.000	1.1400	867.00	.2700-01	.3300-01	.2831-03	.3442-03	.1900	1.400	519.3
37	270.00	.00000	869.00	.4400-01	.5400-01	.4600-03	.5593-03	.3090	2.150	519.9
37	270.00	.48000	870.00	.3600-01	.4400-01	.3797-03	.4616-03	.2550	1.640	519.5
37	270.00	1.9900	871.00	.1300-01	.1600-01	.1363-03	.1657-03	.9200-01	.6800	519.3
37	270.00	3.1300	850.00	.5000-02	.6000-02	.5527-04	.6716-04	.3700-01	.3000	518.2
37	270.00	3.5500	851.00	.6000-02	.7000-02	.5768-04	.7009-04	.3900-01	.3100	518.4
37	270.00	4.0000	852.00	.6000-02	.8000-02	.6753-04	.8207-04	.4500-01	.3800	518.6
37	270.00	4.8300	854.00	.1500-01	.1800-01	.1529-03	.1859-03	.1030	.7500	519.8

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	1.7000	856.00	.1600-01	.1900-01	.2294-03	.2773-03	.1620	1.200	516.5
64	.00000	2.1300	855.00	.1500-01	.2000-01	.2356-03	.2849-03	.1660	1.230	517.3
64	90.000	.51000	868.00	.3600-01	.4400-01	.5210-03	.6300-03	.3690	2.740	516.1
64	90.000	1.1400	867.00	.3500-01	.4200-01	.4977-03	.6018-03	.3520	2.600	516.2
64	270.00	.00000	869.00	.1000+00	.1210	.1444-02	.1747-02	1.020	7.130	517.5
64	270.00	.48000	870.00	.6600-01	.8000-01	.9564-03	.1156-02	.6770	4.360	516.1
64	270.00	1.9900	871.00	.2200-01	.2600-01	.3131-03	.3785-03	.2210	1.650	516.1
64	270.00	3.1300	850.00	.1200-01	.1400-01	.1661-03	.2008-03	.1180	.9500	515.5
64	270.00	3.5500	851.00	.1100-01	.1300-01	.1542-03	.1865-03	.1090	.8800	515.7
64	270.00	4.0000	852.00	.1200-01	.1400-01	.1705-03	.2062-03	.1210	1.010	515.9
64	270.00	4.8300	854.00	.2000-01	.2500-01	.2934-03	.3548-03	.2070	1.510	516.7

OH103A,AEDC V418-V2, CTR FWD FIRING NOZZLE

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	1.7000	856.00	.4000-02	.5000-02	.8798-04	.1058-03	.6700-01	.4900	519.0
19	.00000	2.1300	855.00	.9000-02	.1000-01	.1753-03	.2109-03	.1320	.9800	519.9
19	90.000	.51000	868.00	.5000-02	.5000-02	.9230-04	.1110-03	.7000-01	.5200	518.4
19	90.000	1.1400	867.00	.9000-02	.1000-01	.1770-03	.2129-03	.1340	.9900	518.6
19	270.00	.00000	869.00	.1000-02	.2000-02	.2947-04	.3544-04	.2200-01	.1600	518.0
19	270.00	.48000	870.00	.2000-02	.3000-02	.5064-04	.6089-04	.3800-01	.2500	517.9
19	270.00	1.9900	871.00	.2000-02	.2000-02	.3867-04	.4650-04	.2900-01	.2200	517.4
19	270.00	3.1300	850.00	.2000-02	.2000-02	.3171-04	.3813-04	.2400-01	.1900	517.3
19	270.00	3.5500	851.00	.2000-02	.2000-02	.3812-04	.4583-04	.2900-01	.2300	517.5
19	270.00	4.0000	852.00	.3000-02	.3000-02	.5271-04	.6337-04	.4000-01	.3300	517.8
19	270.00	4.8300	854.00	.1000-01	.1200-01	.1977-03	.2378-03	.1490	1.090	519.6

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.55	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	.00000	1.7000	856.00	.5000-02	.6000-02	.5040-04	.6143-04	.3300-01	.2400	518.5
70	.00000	2.1300	855.00	.8000-02	.1000-01	.8649-04	.1054-03	.5600-01	.4200	519.1
70	90.000	1.1400	867.00	.6000-02	.7000-02	.6176-04	.7526-04	.4000-01	.3000	518.1
70	270.00	4.8300	854.00	.1100-01	.1300-01	.1129-03	.1377-03	.7400-01	.5400	518.8

CTR FWD FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	1.7000	856.00	.4000-02	.5000-02	.5503-04	.6645-04	.3900-01	.2900	512.9
67	.00000	2.1300	855.00	.7000-02	.9000-02	.1050-03	.1269-03	.7500-01	.5500	513.7
67	90.000	.51000	868.00	.3000-02	.4000-02	.4238-04	.5117-04	.3000-01	.2300	512.3
67	90.000	1.1400	867.00	.6000-02	.7000-02	.8741-04	.1056-03	.6200-01	.4600	512.7
67	270.00	1.9900	871.00	.1000-02	.2000-02	.1909-04	.2304-04	.1400-01	.1000+00	512.3
67	270.00	4.0000	852.00	.2000-02	.3000-02	.3236-04	.3907-04	.2300-01	.1900	511.8
67	270.00	4.8300	854.00	.9000-02	.1100-01	.1330-03	.1606-03	.9500-01	.6900	513.0

OH103A.AEDC V41B-V2, CTR UPWD FIRING NOZZLE (R4HD01)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG..R
45	90.000	.90000-01	873.00	.6000-02	.8000-02	.6484-04	.7883-04	.4300-01	.2400	515.9
45	180.00	.17000	874.00	.8000-02	.1000-01	.8584-04	.1044-03	.5700-01	.2400	515.9

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HD01)

OH103A.AEDC V41B-V2. CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	90.000	.90000-01	873.00	.5000-02	.6000-02	.6745-04	.8144-04	.4900-01	.2700	517.0
48	180.00	.17000	874.00	.6000-02	.7000-02	.8627-04	.1042-03	.6200-01	.2600	517.1

OH103A.AEDC V41B-V2, CTR UPWD FIRING NOZZLE (R4HD01)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.00000	875.00	.2000-02	.2000-02	.3513-04	.4232-04	.2600-01	.1900	520.2
71	90.000	.90000-01	873.00	.6000-02	.7000-02	.1127-03	.1357-03	.8400-01	.4700	520.4
71	180.00	.17000	874.00	.7000-02	.9000-02	.1514-03	.1825-03	.1120	.4800	520.8

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE

(R4HD02)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	90.000	.90000-01	873.00	.6000-02	.8000-02	.6601-04	.8034-04	.4400-01	.2500	521.3
22	180.00	.17000	874.00	.9000-02	.1100-01	.9397-04	.1144-03	.6300-01	.2600	521.5

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE (R4HD02)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	.00000	875.00	.3000-02	.4000-02	.6503-04	.7814-04	.5000-01	.3700	515.6
3	90.000	.90000-01	873.00	.8000-02	.9000-02	.1595-03	.1917-03	.1220	.6800	516.1
3	180.00	.17000	874.00	.1000-01	.1200-01	.2098-03	.2521-03	.1600	.6800	516.5

DATE 07 DEC 78

OH103A ORBITER MODEL 83-0 HEATING DATA

(R4HD03)

OH103A.AEDC V418-V2. CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	90.000	.90000-01	873.00	.6000-02	.7000-02	.6281-04	.7640-04	.4200-01	.2300	515.7
44	180.00	.17000	874.00	.9000-02	.1100-01	.9095-04	.1106-03	.6000-01	.2600	515.7

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	90.000	.90000-01	873.00	.3000-02	.4000-02	.4975-04	.6017-04	.3500-01	.2000	516.1
51	180.00	.17000	874.00	.5000-02	.6000-02	.7340-04	.8877-04	.5200-01	.2200	516.1

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

OH103A.AEDC V41B-V2. CTR UPWD FIRING NOZZLE

(R4HD03)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.00000	875.00	.2000-02	.3000-02	.4290-04	.5160-04	.3200-01	.2400	517.8
72	90.000	.90000-01	873.00	.5000-02	.6000-02	.1055-03	.1269-03	.8000-01	.4500	518.1
72	180.00	.17000	874.00	.8000-02	.9000-02	.1581-03	.1902-03	.1190	.5100	518.4

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	90.000	.90000-01	873.00	.4000-02	.5000-02	.4008-04	.4865-04	.2700-01	.1500	518.8

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEAT.NG DATA

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE

(R4HD 4)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770..	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.00000	875.00	.2000-02	.3000-02	.4491-04	.5403-04	.3400-01	.2500	520.3
7	90.000	.90000-01	873.00	.5000-02	.6000-02	.1086-03	.1306-03	.8200-01	.4600	520.3
7	180.00	.17000	874.00	.8000-02	.9000-02	.1550-03	.1865-03	.1170	.5000	520.8

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	90.000	.90000-01	873.00	.5000-02	.6000-02	.4977-04	.6035-04	.3400-01	.1900	518.3
28	180.00	.17000	874.00	.8000-02	.9000-02	.7945-04	.9636-04	.5500-01	.2300	518.3

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HD05)

OH103A.AEDC V41B-V2. CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	90.000	.90000-01	873.00	.3000-02	.4000-02	.4794-04	.5795-04	.3400-01	.1900	516.7
54	180.00	.17000	874.00	.6000-02	.7000-02	.8590-04	.1014-03	.6000-01	.2500	516.7

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
73	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.00000	875.00	.2000-02	.3000-02	.4496-04	.5405-04	.3400-01	.2500	518.1
73	90.000	.90000-01	873.00	.5000-02	.6000-02	.1067-03	.1282-03	.8100-01	.4500	518.5
73	180.00	.17000	874.00	.9000-02	.1000-01	.1765-03	.2122-03	.1340	.5700	518.7

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	90.000	.90000-01	873.00	.6000-02	.7000-02	.5821-04	.7079-04	.3900-01	.2200	517.2
40	180.00	.17000	874.00	.8000-02	.1000-01	.8793-04	.1069-03	.5900-01	.2500	517.2

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
10	.00000	.00000	875.00	.2000-02	.2000-02	.4052-04	.4875-04	.3100-01	.2300	520.5
10	90.000	.90000-01	873.00	.5000-02	.6000-02	.1070-03	.1288-03	.8100-01	.4500	520.7
10	180.00	.17000	874.00	.8000-02	.1000-01	.1680-03	.2021-03	.1270	.5400	521.1

OH103A.AEDC V41B-V2. CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
31	7.880	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	90.000	.90000-01	873.00	.3000-02	.3000-02	.2861-04	.3469-04	.2000-01	.1100	517.4
31	180.00	.17000	874.00	.5000-02	.6000-02	.5314-04	.6443-04	.3700-01	.1600	517.4

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE (R4HD07)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	90.000	.90000-01	873.00	.4000-02	.5000-02	.5431-04	.6566-04	.3800-01	.2200	514.6
58	180.00	.17000	874.00	.7000-02	.8000-02	.9773-04	.1182-03	.6900-01	.2900	514.9

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.00000	875.00	.2000-02	.2000-02	.4198-04	.5050-04	.3200-01	.2400	521.1
13	90.000	.90000-01	873.00	.5000-02	.7000-02	.1116-03	.1343-03	.8500-01	.4700	521.5
13	180.00	.17000	874.00	.9000-02	.1100-01	.1875-03	.2256-03	.1420	.6000	521.8

OH103A,AEDC V41B-V2, CTR UPWD FIRING NOZZLE (R4HD08)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	90.000	.90000-01	873.00	.4000-02	.5000-02	.4616-04	.5616-04	.3100-01	.1700	516.3
43	180.00	.17000	874.00	.7000-02	.9000-02	.7603-04	.9250-04	.5000-01	.2100	516.3

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	69.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.00000	875.00	.3000-02	.3000-02	.2911-04	.3532-04	.2000-01	.1500	517.1

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	90.000	.90000-01	873.00	.4000-02	.5000-02	.5965-04	.7211-04	.4200-01	.2400	515.0
61	180.00	.17000	874.00	.9000-02	.1100-01	.1256-03	.1518-03	.8900-01	.3800	515.2

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

OH103A.AEDC V41B-V2. CTR UPWD FIRING NOZZLE

(R4HD09)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.00000	875.00	.2000-02	.3000-02	.5098-04	.6128-04	.3900-01	.2900	518.6
16	90.000	.90000-01	873.00	.6000-02	.7000-02	.1235-03	.1485-03	.9400-01	.5300	519.1
16	180.00	.17000	874.00	.1100-01	.1400-01	.2317-03	.2785-03	.1760	.7500	519.5

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.00000	875.00	.3000-02	.3000-02	.2794-04	.3393-04	.1900-01	.1400	517.2
37	90.000	.90000-01	873.00	.8000-02	.1000-01	.8787-04	.1068-03	.5900-01	.3300	517.5
37	180.00	.17000	874.00	.1700-01	.2100-01	.1800-03	.2187-03	.1210	.5100	517.8

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.00000	875.00	.6000-02	.7000-02	.8941-04	.1081-03	.6300-01	.4700	514.3
64	90.000	.90000-01	873.00	.1300-01	.1500-01	.1819-03	.2199-03	.1290	.7200	514.7
64	180.00	.17000	874.00	.2500-01	.3000-01	.3595-03	.4346-03	.2550	1.080	515.2

OH103A,AEDC V418-V2, CTR UPWD FIRING NOZZLE (R4HD10)

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.00000	875.00	.4000-02	.4000-02	.7498-04	.9013-04	.5700-01	.4200	516.6
19	90.000	.90000-01	873.00	.8000-02	.9000-02	.1547-03	.1859-03	.1170	.6600	517.2
19	180.00	.17000	874.00	.1600-01	.2000-01	.3339-03	.4014-03	.2530	1.080	517.2

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	90.000	.90000-01	873.00	.6000-02	.7000-02	.6214-04	.7570-04	.4100-01	.2300	517.2
70	180.00	.17000	874.00	.1100-01	.1300-01	.1111-03	.1354-03	.7300-01	.3100	517.5

CTR UP FIRE NOZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.00000	875.00	.2000-02	.3000-02	.3443-04	.4157-04	.2500-01	.1800	511.6
67	90.000	.90000-01	873.00	.6000-02	.7000-02	.8159-04	.9851-04	.5800-01	.3300	511.9
67	180.00	.17000	874.00	.1200-01	.1400-01	.1649-03	.1991-03	.1180	.5000	512.3

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OH103A ORBITER MODEL 83-O HEATING DATA

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE

(R4HE01)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
45	.00000	.00000	861.00	.4000-02	.5000-02	.4065-04	.4943-04	.2700-01	.1800	516.2
45	.00000	2.1300	860.00	.1300-01	.1600-01	.1349-03	.1640-03	.9000-01	.7000	516.4
45	.00000	2.7000	859.00	.1500-01	.1900-01	.1590-03	.1934-03	.1060	.8100	517.6

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.9E	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	.00000	861.00	.9000-02	.1100-01	.1339-03	.1618-03	.9600-01	.6300	519.3
48	.00000	2.1300	860.00	.1200-01	.1500-01	.1740-03	.2102-03	.1250	.9700	518.9
48	.00000	2.7000	859.00	.1300-01	.1600-01	.1863-03	.2252-03	.1340	1.020	520.3
48	270.00	2.4100	858.00	.4000-02	.5000-02	.5569-04	.6726-04	.4000-01	.2700	517.9

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE (R4HE01)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.00000	861.00	.3700-01	.4400-01	.7475-03	.9020-03	.5520	3.620	525.9
71	.00000	2.1300	860.00	.1500-01	.1900-01	.3132-03	.3775-03	.2320	1.800	522.3
71	.00000	2.7000	859.00	.1500-01	.1800-01	.3065-03	.3696-03	.2270	1.730	523.8
71	270.00	2.4100	858.00	.1200-01	.1400-01	.2368-03	.2854-03	.1760	1.200	521.7

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	.00000	.00000	861.00	.5000-02	.6000-02	.4757-04	.5795-04	.3100-01	.2100	524.6
22	.00000	2.1300	860.00	.1400-01	.1700-01	.1434-03	.1746-03	.9500-01	.7400	523.0
22	.00000	2.7000	859.00	.2300-01	.2800-01	.2421-03	.2950-03	.1600	1.220	524.5
22	270.00	2.4100	858.00	.5000-02	.6000-02	.5376-04	.6546-04	.3600-01	.2400	522.7

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	.00000	861.00	.3800-01	.4600-01	.7719-03	.9290-03	.5830	3.830	522.3
3	.00000	2.1300	860.00	.1700-01	.2000-01	.3447-03	.4143-03	.2620	2.030	517.1
3	.00000	2.7000	859.00	.1700-01	.2000-01	.3463-03	.4163-03	.2630	2.010	517.8
3	270.00	2.4100	858.00	.1300-01	.1500-01	.2597-03	.3122-03	.1970	1.350	517.8

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	2.1300	860.00	.1200-01	.1400-01	.1249-03	.1519-03	.8300-01	.6400	516.0
44	.00000	2.7000	859.00	.1300-01	.1600-01	.1413-03	.1720-03	.9300-01	.7100	517.4
44	270.00	2.4100	858.00	.4000-02	.5000-02	.4359-04	.5302-04	.2900-01	.2000	515.3

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	.00000	861.00	.4000-02	.5000-02	.6392-04	.7736-04	.4500-01	.3000	518.3
51	.00000	2.1300	860.00	.1000-01	.1300-01	.1495-03	.1809-03	.1050	.8200	518.2
51	.00000	2.7000	859.00	.1300-01	.1600-01	.1855-03	.2245-03	.1300	1.000	519.4
51	270.00	2.4100	858.00	.2000-02	.3000-02	.3028-04	.3663-04	.2100-01	.1500	517.5

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.00000	861.00	.1400-01	.1700-01	.2868-03	.3453-03	.2150	1.420	521.6
72	.00000	2.1300	860.00	.1300-01	.1600-01	.2641-03	.3178-03	.1990	1.540	520.1
72	.00000	2.7000	859.00	.1400-01	.1600-01	.2787-03	.3355-03	.2090	1.600	521.4
72	270.00	2.4100	858.00	.5000-02	.6000-02	.9585-04	.1153-03	.7200-01	.4900	519.6

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HE04)

OH103A,AEDC V41B-V2. LFT FWD FIRING NOZZLE

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	.00000	2.1300	860.00	.1100-01	.1300-01	.1131-03	.1372-03	.7700-01	.6000	519.3
25	.00000	2.7000	859.00	.1100-01	.1300-01	.1148-03	.1394-03	.7800-01	.6000	520.6

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.00000	861.00	.1300-01	.1500-01	.2602-03	.3137-03	.1940	1.270	528.4
7	.00000	2.1300	860.00	.1200-01	.1400-01	.2424-03	.2921-03	.1820	1.400	525.8
7	.00000	2.7000	859.00	.1300-01	.1500-01	.2582-03	.3113-03	.1930	1.470	526.9
7	270.00	2.4100	858.00	.5000-02	.6000-02	.9760-04	.1176-03	.7300-01	.5000	525.5

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	.00000	2.1300	860.00	.1000-01	.1200-01	.1010-03	.1225-03	.6900-01	.5400	518.7
28	.00000	2.7000	859.00	.9000-02	.1100-01	.9108-04	.1105-03	.6200-01	.4800	520.1

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0006

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	.00000	.00000	861.00	.3000-02	.4000-02	.4450-04	.5382-04	.3200-01	.2100	518.6
54	.00000	2.1300	860.00	.9000-02	.1100-01	.1274-03	.1541-03	.9000-01	.7000	518.0
54	.00000	2.7000	859.00	.2100-01	.2500-01	.3005-03	.3636-03	.2120	1.620	519.9

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

OH103A.AEDC V41B-V2, LFT FWD FIRING NOZZLE

(R4HE05)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
73	.2125-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.00000	861.00	.1100-01	.1300-01	.2198-03	.2644-03	.1670	1.090	520.2
73	.00000	2.1300	860.00	.1100-01	.1300-01	.2273-03	.2734-03	.1720	1.340	519.7
73	.00000	2.7000	859.00	.1300-01	.1600-01	.2674-03	.3217-03	.2020	1.540	521.5
73	270.00	2.4100	858.00	.4000-02	.4000-02	.7611-04	.9152-04	.5800-01	.3900	518.9

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE (R4HE08)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	.00000	2.1300	860.00	.1000-01	.1200-01	.1051-03	.1279-03	.7000-01	.5400	518.0
40	.00000	2.7000	859.00	.1200-01	.1500-01	.1293-03	.1574-03	.8600-01	.6600	519.4

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TH DEG. R
10	.00000	.00000	861.00	.1100-01	.1400-01	.2325-03	.2801-03	.1750	1.150	526.2
10	.00000	2.1300	860.00	.1200-01	.1400-01	.2394-03	.2884-03	.1800	1.390	524.4
10	.00000	2.7000	859.00	.1400-01	.1700-01	.2903-03	.3498-03	.2180	1.660	526.3
10	270.00	2.4100	858.00	.4000-02	.4000-02	.7343-04	.8841-04	.5500-01	.3800	523.6

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE (R4HE07)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
31	7.880	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	.00000	2.1300	860.00	.7000-02	.9000-02	.7410-04	.8985-04	.5100-01	.4000	517.6
31	.00000	2.7000	859.00	.1100-01	.1300-01	.1142-03	.1385-03	.7800-01	.6000	519.3

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	.00000	.00000	861.00	.3000-02	.4000-02	.4982-04	.6025-04	.3500-01	.2300	515.5
58	.00000	2.1300	860.00	.8000-02	.1000-01	.1207-03	.1459-03	.8500-01	.6600	515.7
58	.00000	2.7000	859.00	.1200-01	.1400-01	.1685-03	.2039-03	.1190	.9100	517.1
58	270.00	2.4100	858.00	.2000-02	.2000-02	.2449-04	.2962-04	.1700-01	.1200	515.0

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE (R4HE07)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.00000	861.00	.9000-02	.1100-01	.1797-03	.2165-03	.1350	.8900	525.7
13	.00000	2.1300	860.00	.1000-01	.1200-01	.2105-03	.2535-03	.1590	1.230	523.8
13	.00000	2.7000	859.00	.1100-01	.1400-01	.2328-03	.2805-03	.1750	1.340	525.8
13	270.00	2.4100	858.00	.3000-02	.4000-02	.6452-04	.7765-04	.4900-01	.3300	522.6

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	.00000	2.1300	860.00	.9000-02	.1000-01	.8913-04	.1085-03	.5900-01	.4600	516.7
43	.00000	2.7000	859.00	.1100-01	.1300-01	.1140-03	.1387-03	.7500-01	.5800	518.1

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE (R4HE09)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.00000	861.00	.2000-02	.2000-02	.1917-04	.2326-04	.1300-01	.9000-01	518.1
34	.00000	2.1300	860.00	.8000-02	.1000-01	.8452-04	.1025-03	.5800-01	.4500	517.3
34	.00000	2.7000	859.00	.9000-02	.1000-01	.9034-04	.1097-03	.6200-01	.4700	518.6

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	.00000	861.00	.2000-02	.3000-02	.3497-04	.4228-04	.2500-01	.1600	515.2
61	.00000	2.1300	860.00	.8000-02	.9000-02	.1086-03	.1313-03	.7700-01	.6000	515.7
61	.00000	2.7000	859.00	.7000-02	.8000-02	.9414-04	.1139-03	.6600-01	.5100	517.3
61	270.00	2.4100	858.00	.2000-02	.2000-02	.2173-04	.2626-04	.1500-01	.1100	515.0

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.00000	861.00	.7000-02	.9000-02	.1525-03	.1834-03	.1160	.7600	520.2
16	.00000	2.1300	860.00	.9000-02	.1100-01	.1933-03	.2324-03	.1470	1.140	519.8
16	.00000	2.7000	859.00	.1200-01	.1400-01	.2451-03	.2948-03	.1860	1.420	521.9
16	270.00	2.4100	858.00	.3000-02	.4000-02	.6025-04	.7243-04	.4600-01	.3100	518.9

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.00000	861.00	.1000-01	.1200-01	.1062-03	.1290-03	.7100-01	.4700	517.6
37	.00000	2.1300	860.00	.5000-02	.7000-02	.5587-04	.6788-04	.3800-01	.2900	517.3
37	.00000	2.7000	859.00	.8000-02	.1000-01	.8425-04	.1024-03	.5700-01	.4300	518.7
37	90.000	.85000	862.00	.1600-01	.2300-01	.1635-03	.2441-03	.5900-01	.9200	830.1
37	270.00	2.4100	858.00	.3000-02	.4000-02	.3012-04	.3659-04	.2000-01	.1400	517.0

OH103A.AEDC V41B-V2, LFT FWD FIRING NOZZLE (R4HE10)

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.00000	861.00	.2500-01	.3100-01	.3668-03	.4434-03	.2600	1.710	515.2
64	.00000	2.1300	860.00	.9000-02	.1100-01	.1345-03	.1626-03	.9500-01	.7400	514.6
64	.00000	2.7000	859.00	.1300-01	.1600-01	.1886-03	.2281-03	.1330	1.020	516.4
64	270.00	2.4100	858.00	.8000-02	.9000-02	.1115-03	.1348-03	.7900-01	.5400	514.2

OH103A,AEDC V41B-V2, LFT FWD FIRING NOZZLE

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.00000	861.00	.7000-02	.8000-02	.1373-03	.1651-03	.1040	.6900	517.4
19	.00000	2.1300	860.00	.1000-01	.1200-01	.2053-03	.2468-03	.1560	1.210	517.2
19	.00000	2.7000	859.00	.1300-01	.1600-01	.2737-03	.3292-03	.2070	1.580	519.5
19	270.00	2.4100	858.00	.4000-02	.5000-02	.7674-04	.9224-04	.5800-01	.4000	516.4

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	.00000	2.1300	860.00	.8000-02	.9000-02	.7754-04	.9446-04	.5100-01	.3900	517.1
70	.00000	2.7000	859.00	.1200-01	.1500-01	.1235-03	.1506-03	.8100-01	.6200	518.4

LEFT FWD FIRE NZZL

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.00000	861.00	.2000-02	.3000-02	.3478-04	.4199-04	.2500-01	.1600	511.4
67	.00000	2.1300	860.00	.7000-02	.9000-02	.1063-03	.1284-03	.7600-01	.5900	511.5
67	.00000	2.7000	859.00	.1200-01	.1500-01	.1730-03	.2089-03	.1230	.9500	512.7
67	270.00	2.4100	858.00	.2000-02	.3000-02	.3331-04	.4021-04	.2400-01	.1600	511.0

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
45	.00000	.20000	863.00	.6000-02	.7000-02	.5925-04	.7201-04	.4000-01	.2500	514.7
45	180.00	.48000	865.00	.5000-02	.6000-02	.5247-04	.6378-04	.3500-01	.2200	515.1

DATE 07 DEC 78

OH103A ORBITER MODEL 83-0 HEATING DATA

(R4HF01)

OH103A.AEDC V41B-V2, LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	.20000	863.00	.5000-02	.6000-02	.6737-04	.8132-04	.4900-01	.3100	516.2
48	180.00	.48000	865.00	.4000-02	.5000-02	.5730-04	.6917-04	.4100-01	.2600	516.5

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.20000	863.00	.6000-02	.7000-02	.1264-03	.1523-03	.9400-01	.6000	520.1
71	180.00	.48000	865.00	.6000-02	.7000-02	.1150-03	.1386-03	.8500-01	.5300	520.4

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	.00000	.20000	863.00	.6000-02	.7000-02	.6422-04	.7816-04	.4300-01	.2700	521.2
22	180.00	.48000	865.00	.6000-02	.7000-02	.6432-04	.7828-04	.4300-01	.2600	521.6

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE (R4HF02)

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	.20000	863.00	.8000-02	.9000-02	.1571-03	.1889-03	.1190	.7600	518.1
3	180.00	.48000	865.00	.7000-02	.9000-02	.1484-03	.1785-03	.1130	.7000	518.5

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HF03)

OH103A.AEDC V41B-V2, LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	P0 PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(7) =.040
44	.3873-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	.20000	863.00	.5000-02	.6000-02	.5551-04	.6749-04	.3700-01	.2400	514.6
44	180.00	.48000	865.00	.5000-02	.6000-02	.4965-04	.6038-04	.3300-01	.2000	515.0

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	.20000	863.00	.3000-02	.3000-02	.3603-04	.4356-04	.2500-01	.1600	515.1
51	180.00	.48000	865.00	.3000-02	.3000-02	.3827-04	.4627-04	.2700-01	.1700	515.4

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HF03)

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.20000	863.00	.4000-02	.5000-02	.8781-04	.1056-03	.6600-01	.4200	517.9
72	180.00	.48000	865.00	.5000-02	.6000-02	.9543-04	.1148-03	.7200-01	.4500	518.4

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	180.00	.48000	865.00	.4000-02	.4000-02	.3708-04	.4501-04	.2500-01	.1600	518.5

OH103A.AEDC V41B-V2. LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.20000	863.00	.5000-02	.6000-02	.9511-04	.1145-03	.7200-01	.4600	521.4
7	180.00	.48000	865.00	.5000-02	.6000-02	.1003-03	.1207-03	.7600-01	.4700	521.7

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE (R4HF05)

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	180.00	.48000	865.00	.3000-02	.4000-02	.4800-04	.5802-04	.3400-01	.2100	515.9

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
73	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.20000	863.00	.4000-02	.5000-02	.9046-04	.1087-03	.6900-01	.4400	517.8
73	180.00	.48000	865.00	.6000-02	.7000-02	.1183-03	.1423-03	.9000-01	.5600	518.4

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	180.00	.48000	865.00	.6000-02	.7000-02	.5747-04	.6988-04	.3800-01	.2400	516.5

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
10	.00000	.20000	863.00	.4000-02	.5000-02	.8961-04	.1078-03	.6800-01	.4300	520.7
10	180.00	.48000	865.00	.6000-02	.7000-02	.1228-03	.1478-03	.9300-01	.5700	521.2

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	.00000	.20000	863.00	.3000-02	.3000-02	.3930-04	.4751-04	.2800-01	.1800	514.1
58	180.00	.48000	865.00	.3000-02	.4000-02	.5041-04	.6094-04	.3600-01	.2200	514.6

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OH103A ORBITER MODEL 83-O HEATING DATA

(R4H#07)

OH103A.AEDC V41B-V2. LFT UPWD FIRING NOZZLE

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.20000	863.00	.4000-02	.5000-02	.8955-04	.1077-03	.6800-01	.4300	520.1
13	180.00	.48000	865.00	.6000-02	.7000-02	.1252-03	.1506-03	.9500-01	.5900	520.7

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	180.00	.48000	865.00	.3000-02	.4000-02	.3597-04	.4375-04	.2400-01	.1500	515.5

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.20000	863.00	.5000-02	.5000-02	.4715-04	.5719-04	.3200-01	.2100	516.0
34	180.00	.48000	865.00	.5000-02	.6000-02	.5102-04	.6189-04	.3500-01	.2200	516.5

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	.20000	863.00	.3000-02	.3000-02	.3974-04	.4802-04	.2800-01	.1800	513.8
61	180.00	.48000	865.00	.4000-02	.4000-02	.5213-04	.6300-04	.3700-01	.2300	514.3

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE (R4HF09)

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.20000	863.00	.4000-02	.5000-02	.7701-04	.9255-04	.5900-01	.3700	517.6
16	180.00	.48000	865.00	.6000-02	.7000-02	.1162-03	.1397-03	.8900-01	.5500	518.2

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE (R4HF10)

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.20000	863.00	.5000-02	.7000-02	.5625-04	.6831-04	.3800-01	.2400	516.2
37	180.00	.48000	865.00	.8000-02	.9000-02	.7857-04	.9542-04	.5300-01	.3300	516.7

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.20000	863.00	.9000-02	.1100-01	.1306-03	.1578-03	.9300-01	.5900	513.3
64	90.000	.26000	864.00	.1000-02	.1000-02	.8410-05	.1020-04	.6000-02	.4000-01	527.1
64	180.00	.48000	865.00	.1200-01	.1400-01	.1717-03	.2074-03	.1220	.7600	514.0

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE (R4HF10)

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 10B	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.20000	863.00	.4000-02	.5000-02	.8463-04	.1017-03	.6400-01	.4100	515.2
19	180.00	.48000	865.00	.6000-02	.7000-02	.1224-03	.1470-03	.9300-01	.5800	515.9

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OH103A ORBITER MODEL 83-O HEATING DATA

OH103A,AEDC V41B-V2, LFT UPWD FIRING NOZZLE

(R4HF11)

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	180.00	.48000	865.00	.4000-02	.5000-02	.4555-04	.5548-04	.3000-01	.1800	517.0

LEFT UP FIRE NZZLE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.20000	863.00	.3000-02	.4000-02	.4671-04	.5637-04	.3300-01	.2100	510.8
67	180.00	.48000	865.00	.4000-02	.5000-02	.6315-04	.7623-04	.4500-01	.2800	511.3

OH103A.AEDC V41B-V2. LFT FWD DWN FIRING NOZZLE (R4HG01)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
45	.00000	.00000	817.00	.3000-01	.3700-01	.3158-03	.3841-03	.2100	1.820	517.4
45	180.00	1.5600	820.00	.3000-01	.3600-01	.3125-03	.3796-03	.2090	1.580	513.1
45	180.00	2.1300	821.00	.4900-01	.5900-01	.5069-03	.6162-03	.3380	2.540	515.6
45	270.00	2.5600	819.00	.2100-01	.2600-01	.2228-03	.2707-03	.1490	.9400	512.9
45	270.00	3.1200	818.00	.3000-01	.3600-01	.3111-03	.3782-03	.2070	1.560	515.4

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	.00000	817.00	.3200-01	.3800-01	.4557-03	.5507-03	.3270	2.840	520.2
48	180.00	1.5600	820.00	.2900-01	.3500-01	.4156-03	.5014-03	.3000	2.260	514.7
48	180.00	2.1300	821.00	.5200-01	.6200-01	.7428-03	.8973-03	.5340	4.020	519.0
48	270.00	2.5600	819.00	.1800-01	.2200-01	.2662-03	.3212-03	.1930	1.210	514.0
48	270.00	3.1200	818.00	.2700-01	.3300-01	.3882-03	.4686-03	.2800	2.110	516.7

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE (R4HG01)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TC) BTU.R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.00000	817.00	.3200-01	.3900-01	.6583-03	.7944-03	.4860	4.200	526.1
71	180.00	1.5600	820.00	.3000-01	.3600-01	.6089-03	.7346-03	.4500	3.370	525.2
71	180.00	2.1300	821.00	.6000-01	.7200-01	.1216-02	.1469-02	.8910	6.660	530.4
71	270.00	2.5600	819.00	.1300-01	.1600-01	.2630-03	.3169-03	.1950	1.220	521.0
71	270.00	3.1200	818.00	.2400-01	.2900-01	.4956-03	.5976-03	.3670	2.750	523.4

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	.00000	.00000	817.00	.3300-01	.4100-01	.3481-03	.4240-03	.2310	2.000	524.0
22	180.00	1.5600	820.00	.3200-01	.3900-01	.3326-03	.4046-03	.2220	1.670	520.1
22	180.00	2.1300	821.00	.5100-01	.6200-01	.5339-03	.6499-03	.3550	2.670	521.9
22	270.00	2.5600	819.00	.2100-01	.2500-01	.2167-03	.2636-03	.1450	.9100	519.8
22	270.00	3.1200	818.00	.3100-01	.3800-01	.3289-03	.4004-03	.2190	1.640	521.7

OH103A.AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE (R4HG02)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	.00000	817.00	.3400-01	.4100-01	.6908-03	.8320-03	.5200	4.500	524.9
3	180.00	1.5600	820.00	.3200-01	.3800-01	.6470-03	.7782-03	.4900	3.680	520.0
3	180.00	2.1300	821.00	.6300-01	.7500-01	.1276-02	.1538-02	.9590	7.190	526.2
3	270.00	2.5600	819.00	.1500-01	.1800-01	.3014-03	.3624-03	.2290	1.440	518.3
3	270.00	3.1200	818.00	.2500-01	.3000-01	.5051-03	.6079-03	.3820	2.870	521.7

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	.00000	817.00	.3100-01	.3800-01	.3238-03	.3940-03	.2140	1.860	516.9
44	180.00	1.5600	820.00	.3700-01	.4500-01	.3880-03	.4715-03	.2580	1.950	512.8
44	180.00	2.1300	821.00	.5600-01	.6800-01	.5902-03	.7177-03	.3910	2.950	515.2
44	270.00	2.5600	819.00	.2100-01	.2600-01	.2255-03	.2740-03	.1500	.9400	512.5
44	270.00	3.1200	818.00	.3100-01	.3800-01	.3294-03	.4005-03	.2180	1.650	514.9

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	.00000	817.00	.2900-01	.3500-01	.4116-03	.4982-03	.2890	2.510	518.9
51	180.00	1.5600	820.00	.3400-01	.4100-01	.4870-03	.5885-03	.3450	2.600	513.7
51	180.00	2.1300	821.00	.6000-01	.7200-01	.8527-03	.1032-02	.6010	4.520	517.3
51	270.00	2.5600	819.00	.1900-01	.2300-01	.2680-03	.3238-03	.1900	1.190	512.7
51	270.00	3.1200	818.00	.2700-01	.3200-01	.3800-03	.4594-03	.2680	2.020	515.3

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.00000	817.00	.3200-01	.3900-01	.6571-03	.7912-03	.4930	4.270	522.0
72	180.00	1.5600	820.00	.4100-01	.4900-01	.8357-03	.1005-02	.6310	4.750	517.2
72	180.00	2.1300	821.00	.7300-01	.8800-01	.1481-02	.1784-02	1.109	8.320	523.9
72	270.00	2.5600	819.00	.1700-01	.2000-01	.3436-03	.4128-03	.2610	1.640	514.2
72	270.00	3.1200	818.00	.2800-01	.3400-01	.5746-03	.6911-03	.4340	3.270	517.2

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.90	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	.00000	.00000	817.00	.2900-01	.3500-01	.2997-03	.3640-03	.2040	1.770	520.5
25	180.00	1.5600	820.00	.3300-01	.4000-01	.3448-03	.4181-03	.2360	1.780	515.7
25	180.00	2.1300	821.00	.5000-01	.6100-01	.5274-03	.6400-03	.3600	2.710	517.8
25	270.00	2.5600	819.00	.1900-01	.2300-01	.1976-03	.2395-03	.1350	.8500	515.2
25	270.00	3.1200	818.00	.2800-01	.3500-01	.2990-03	.3628-03	.2040	1.540	517.4

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTL/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.00000	817.00	.3100-01	.3700-01	.6284-03	.7583-03	.4680	4.040	530.7
7	180.00	1.5600	820.00	.4000-01	.4800-01	.8135-03	.9803-03	.6100	4.570	525.8
7	180.00	2.1300	821.00	.7200-01	.8700-01	.1476-02	.1781-02	1.099	8.210	531.3
7	270.00	2.5600	819.00	.1400-01	.1700-01	.2606-03	.3377-03	.2110	1.320	522.2
7	270.00	3.1200	818.00	.2500-01	.3000-01	.5080-03	.6119-03	.3820	2.860	524.1

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	.00000	.00000	817.00	.2600-01	.3100-01	.2676-03	.3247-03	.1830	1.590	520.7
28	180.00	1.5600	820.00	.3400-01	.4200-01	.3589-03	.4353-03	.2470	1.860	518.5
28	180.00	2.1300	821.00	.5400-01	.6600-01	.5641-03	.6846-03	.3870	2.910	520.4
28	270.00	2.5600	819.00	.1800-01	.2200-01	.1915-03	.2321-03	.1320	.8300	517.5
28	270.00	3.1200	818.00	.2600-01	.3100-01	.2699-03	.3275-03	.1850	1.390	519.4

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	.00000	.00000	817.00	.2500-01	.3000-01	.3564-03	.4314-03	.2520	2.180	520.7
54	180.00	1.5600	820.00	.3500-01	.4200-01	.4994-03	.6038-03	.3540	2.670	517.5
54	180.00	2.1300	821.00	.5600-01	.6800-01	.8004-03	.9687-03	.5650	4.250	520.7
54	270.00	2.5600	819.00	.1800-01	.2200-01	.2583-03	.3122-03	.1830	1.150	516.2
54	270.00	3.1200	818.00	.2500-01	.3100-01	.3622-03	.4380-03	.2560	1.930	518.5

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
73	.2125-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.00000	817.00	.2900-01	.3500-01	.5998-03	.7219-03	.4530	3.920	522.4
73	180.00	1.5600	820.00	.4500-01	.5400-01	.9132-03	.1098-02	.6930	5.210	519.2
73	180.00	2.1300	821.00	.7100-01	.8600-01	.1458-02	.1757-02	1.097	8.230	525.2
73	270.00	2.5600	819.00	.1500-01	.1800-01	.3140-03	.3772-03	.2390	1.500	515.6
73	270.00	3.1200	818.00	.2600-01	.3100-01	.5253-03	.6317-03	.3990	3.000	518.5

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE (R4HG06)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	.00000	.00000	817.00	.2500-01	.3000-01	.2555-03	.3110-03	.1690	1.470	519.9
40	180.00	1.5600	820.00	.3400-01	.4100-01	.3523-03	.4284-03	.2340	1.760	517.4
40	180.00	2.1300	821.00	.5300-01	.6500-01	.5561-03	.6768-03	.3690	2.770	519.5
40	270.00	2.5600	819.00	.2100-01	.2500-01	.2150-03	.2614-03	.1430	.9000	516.8
40	270.00	3.1200	818.00	.2500-01	.3100-01	.2636-03	.3208-03	.1750	1.320	519.1

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE (R4HG06)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10	.2123-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
10	.00000	.00000	817.00	.2900-01	.3400-01	.5841-03	.7039-03	.4380	3.790	527.2
10	180.00	1.5600	820.00	.4500-01	.5400-01	.9129-03	.1099-02	.6880	5.160	524.1
10	180.00	2.1300	821.00	.7000-01	.8500-01	.1436-02	.1731-02	1.074	8.030	529.5
10	270.00	2.5600	819.00	.1500-01	.1900-01	.3147-03	.3785-03	.2380	1.490	519.8
10	270.00	3.1200	818.00	.2500-01	.3000-01	.5089-03	.6124-03	.3850	2.890	521.8

OH103A.AEDC V418-V2, LFT FWD DWN FIRING NOZZLE (RMHG07)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
31	7.890	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.C	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	.00000	.00000	817.00	.2400-01	.2900-01	.2471-03	.2999-03	.1690	1.470	519.8
31	180.00	1.5600	820.00	.3300-01	.4100-01	.3475-03	.4214-03	.2390	1.800	517.9
31	180.00	2.1300	821.00	.4900-01	.6000-01	.5113-03	.6205-03	.3500	2.630	519.7
31	270.00	2.5600	819.00	.1700-01	.2000-01	.1737-03	.2105-03	.1190	.7500	516.9
31	270.00	3.1200	818.00	.2400-01	.2900-01	.2529-03	.3068-03	.1730	1.300	518.9

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	.00000	.00000	817.00	.2400-01	.2900-01	.3508-03	.4246-03	.2470	2.140	518.0
58	180.00	1.5600	820.00	.3700-01	.4500-01	.5352-03	.6471-03	.3780	2.850	514.9
58	180.00	2.1300	821.00	.5800-01	.7000-01	.8309-03	.1006-02	.5840	4.390	518.2
58	270.00	2.5600	819.00	.1800-01	.2200-01	.2593-03	.3134-03	.1830	1.150	513.7
58	270.00	3.1200	818.00	.2400-01	.2900-01	.3481-03	.4211-03	.2450	1.850	516.3

OH103A,AEDC V418-V2, LFT FWD DWN FIRING NOZZLE (R4HG07)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.00000	817.00	.2700-01	.3300-01	.5518-03	.6649-03	.4150	3.590	526.9
13	180.00	1.5600	820.00	.4600-01	.5500-01	.9312-03	.1121-02	.7020	5.260	525.0
13	180.00	2.1300	821.00	.7000-01	.8400-01	.1428-02	.1723-02	1.068	7.990	530.6
13	270.00	2.5600	819.00	.1500-01	.1800-01	.2985-03	.3591-03	.2260	1.420	520.9
13	270.00	3.1200	818.00	.2600-01	.3100-01	.5278-03	.6354-03	.3990	2.990	523.6

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	.00000	.00000	817.00	.2400-01	.2900-01	.2518-03	.3065-03	.1660	1.440	517.8
43	180.00	1.5600	820.00	.3600-01	.4400-01	.3773-03	.4587-03	.2500	1.890	514.5
43	180.00	2.1300	821.00	.5700-01	.7000-01	.6001-03	.7301-03	.3970	2.990	516.4
43	270.00	2.5600	819.00	.1900-01	.2300-01	.1972-03	.2397-03	.1310	.8200	514.0
43	270.00	3.1200	818.00	.2700-01	.3200-01	.2773-03	.3373-03	.1830	1.380	516.3

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE (R4HG09)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.00000	817.00	.2200-01	.2700-01	.2301-03	.2793-03	.1570	1.360	518.5
34	180.00	1.5600	820.00	.3500-01	.4200-01	.3643-03	.4419-03	.2490	1.870	516.4
34	180.00	2.1300	821.00	.5000-01	.6000-01	.5205-03	.6317-03	.3550	2.670	518.0
34	270.00	2.5600	819.00	.1900-01	.2300-01	.1952-03	.2367-03	.1340	.8400	515.4
34	270.00	3.1200	818.00	.2300-01	.2800-01	.2453-03	.2977-03	.1670	1.260	517.3

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	.00000	817.00	.2200-01	.2600-01	.3102-03	.3753-03	.2190	1.900	517.6
61	180.00	1.5600	820.00	.3800-01	.4600-01	.5456-03	.6594-03	.3870	2.910	514.2
61	180.00	2.1300	821.00	.5800-01	.7000-01	.8305-03	.1005-02	.5860	4.410	517.3
61	270.00	2.5600	819.00	.1700-01	.2100-01	.2454-03	.2965-03	.1740	1.090	513.2
61	270.00	3.1200	818.00	.2400-01	.2800-01	.3358-03	.4061-03	.2370	1.790	515.6

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.00000	817.00	.2400-01	.2900-01	.4916-03	.5914-03	.3730	3.230	522.3
16	180.00	1.5600	820.00	.4400-01	.5300-01	.8938-03	.1075-02	.6800	5.110	519.9
16	180.00	2.1300	821.00	.6600-01	.7900-01	.1344-02	.1618-02	1.014	7.600	525.6
16	270.00	2.5600	819.00	.1500-01	.1800-01	.3114-03	.3741-03	.2380	1.490	516.4
16	270.00	3.1200	818.00	.2300-01	.2800-01	.4765-03	.5729-03	.3630	2.730	519.3

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.00000	817.00	.2700-01	.3300-01	.2808-03	.3414-03	.1890	1.640	519.2
37	180.00	1.5600	820.00	.7200-01	.8700-01	.7466-03	.9070-03	.5030	3.780	517.5
37	180.00	2.1300	821.00	.9700-01	.1170	.1006-02	.1223-02	.6750	5.080	519.5
37	270.00	2.5600	819.00	.2700-01	.3300-01	.2852-03	.3463-03	.1920	1.210	516.5
37	270.00	3.1200	818.00	.3400-01	.4100-01	.3553-03	.4318-03	.2390	1.800	518.7

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE (R4H010)

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.00000	817.00	.3100-01	.3700-01	.4452-03	.5384-03	.3150	2.730	516.8
64	180.00	1.5600	820.00	.9200-01	.1110	.1328-02	.1605-02	.9410	7.100	514.9
64	180.00	2.1300	821.00	.1220	.1480	.1762-02	.2131-02	1.244	9.360	517.7
64	270.00	2.5600	819.00	.3300-01	.3900-01	.4691-03	.5667-03	.3330	2.100	513.0
64	270.00	3.1200	818.00	.4100-01	.5000-01	.5945-03	.7189-03	.4200	3.170	516.6

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OH103A ORBITER MODEL 83-O HEATING DATA

(R4HG10)

OH103A,AEDC V41B-V2, LFT FWD DWN FIRING NOZZLE

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.00000	817.00	.2400-01	.2900-01	.4951-03	.5956-03	.3740	3.250	519.4
19	180.00	1.5600	820.00	.4700-01	.5700-01	.9693-03	.1165-02	.7350	5.530	517.3
19	180.00	2.1300	821.00	.6800-01	.8200-01	.1388-02	.1671-02	1.045	7.840	523.0
19	270.00	2.5600	819.00	.1700-01	.2100-01	.3544-03	.4257-03	.2700	1.700	514.0
19	270.00	3.1200	818.00	.2500-01	.3000-01	.5131-03	.6168-03	.3890	2.930	517.0

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R.	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	.00000	.00000	817.00	.2100-01	.2600-01	.2172-03	.2647-03	.1420	1.230	517.8
70	180.00	1.5600	820.00	.3600-01	.4400-01	.3683-03	.4485-03	.2410	1.820	515.7
70	180.00	2.1300	821.00	.5100-01	.6200-01	.5232-03	.6398-03	.3430	2.590	517.0
70	270.00	2.5600	819.00	.1700-01	.2100-01	.1746-03	.2125-03	.1140	.7200	514.9
70	270.00	3.1200	818.00	.2100-01	.2600-01	.2166-03	.2639-03	.1420	1.070	516.6

LFT FWD DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.00000	817.00	.2600-01	.3100-01	.3717-03	.4488-03	.2650	2.310	512.6
67	180.00	1.5600	820.00	.4300-01	.5100-01	.6112-03	.7375-03	.4380	3.310	509.9
67	180.00	2.1300	821.00	.6400-01	.7700-01	.9177-03	.1108-02	.6540	4.940	512.6
67	270.00	2.5600	819.00	.1600-01	.2000-01	.2331-03	.2812-03	.1670	1.050	509.0
67	270.00	3.1200	818.00	.2300-01	.2800-01	.3348-03	.4041-03	.2390	1.810	511.4

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
45	.00000	.00000	822.00	.5100-01	.6200-01	.5279-03	.6420-03	.3510	2.940	516.7
45	.00000	2.4200	833.00	.1900-01	.2300-01	.1989-03	.2414-03	.1340	.9800	510.5
45	90.000	.65000	829.00	.8000-02	.1000-01	.8523-04	.1034-03	.5700-01	.5700	508.8
45	180.00	1.2800	830.00	.1000-01	.1200-01	.1038-03	.1259-03	.7000-01	.6900	509.0
45	180.00	1.9900	831.00	.2700-01	.3200-01	.2791-03	.3388-03	.1870	1.410	510.6
45	180.00	2.4200	832.00	.3900-01	.4700-01	.4066-03	.4937-03	2720	2.060	511.9
45	270.00	.48000	828.00	.5000-02	.6000-02	.5521-04	.6695-04	.3700-01	.3700	507.7
45	270.00	1.0500	827.00	.8000-02	.9000-02	.8157-04	.9895-04	.5500-01	.5200	508.7
45	270.00	1.6200	826.00	.1200-01	.1400-01	.1207-03	.1464-03	.8100-01	.5000	508.9
45	270.00	2.1900	825.00	.1700-01	.2000-01	.1758-03	.2132-03	.1180	.7100	508.8

OH103A,AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	.00000	822.00	.4800-01	.5800-01	.6919-03	.8358-03	.4970	4.150	519.1
48	.00000	2.4200	833.00	.1700-01	.2100-01	.2458-03	.2963-03	.1780	1.300	511.5
48	90.000	.85000	829.00	.8000-02	.1000-01	.1180-03	.1422-03	.8600-01	.8500	510.4
48	180.00	1.2800	830.00	.9000-02	.1100-01	.1276-03	.1538-03	.9300-01	.9100	510.5
48	180.00	1.9900	831.00	.2600-01	.3100-01	.3743-03	.4513-03	.2710	2.050	512.5
48	180.00	2.4200	832.00	.2800-01	.3400-01	.4009-03	.4837-03	.2900	2.180	514.6
48	270.00	.48000	828.00	.5000-02	.6000-02	.7458-04	.8984-04	.5400-01	.5400	508.9
48	270.00	1.0500	827.00	.9000-02	.1100-01	.1334-03	.1608-03	.9700-01	.9200	510.7
48	270.00	1.6200	826.00	.1400-01	.1700-01	.1973-03	.2378-03	.1440	.8800	510.3
48	270.00	2.1300	825.00	.1300-01	.1600-01	.1866-03	.2248-03	.1360	.8100	509.9

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.00000	822.00	.5000-01	.6100-01	.1022-02	.1234-02	.7510	6.240	529.1
71	.00000	2.4200	833.00	.1700-01	.2000-01	.3382-03	.4077-03	.2510	1.820	522.7
71	90.000	.85000	829.00	.1000-01	.1200-01	.1983-03	.2390-03	.1470	1.440	521.9
71	180.00	1.2800	830.00	.1000-01	.1100-01	.1944-03	.2344-03	.1440	1.410	521.9
71	180.00	1.9900	831.00	.2600-01	.3100-01	.5232-03	.6309-03	.3870	2.910	523.1
71	180.00	2.4200	832.00	.2900-01	.3400-01	.5824-03	.7027-03	.4300	3.220	525.2
71	270.00	.48000	828.00	.9000-02	.1100-01	.1864-03	.2246-03	.1380	1.360	520.9
71	270.00	1.0500	827.00	.1300-01	.1500-01	.2579-03	.3109-03	.1910	1.790	522.6
71	270.00	1.6200	826.00	.1300-01	.1500-01	.2601-03	.3134-03	.1930	1.180	520.8
71	270.00	2.1900	825.00	.1300-01	.1600-01	.2721-03	.3278-03	.2020	1.200	520.3

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OH103A ORBITER MODEL 83-O HEATING DATA

(R4HH02)

OH103A.AEDC V41B-V2. LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	.00000	.00000	822.00	.4100-01	.5000-01	.4301-03	.5238-03	.2850	2.380	523.0
22	.00000	2.4200	833.00	.1800-01	.2200-01	.1911-03	.2323-03	.1280	.9300	518.3
22	90.000	.85000	829.00	.7000-02	.8000-02	.6969-04	.8470-04	.4700-01	.4600	517.2
22	180.00	1.2800	830.00	.8000-02	.1000-01	.8433-04	.1025-03	.5600-01	.5500	517.2
22	180.00	1.9900	831.00	.2700-01	.3200-01	.2778-03	.3378-03	.1860	1.400	518.3
22	180.00	2.4200	832.00	.4700-01	.5700-01	.4920-03	.5984-03	.3280	2.470	519.3
22	270.00	.48000	828.00	.5000-02	.6000-02	.4903-04	.5958-04	.3300-01	.3200	516.4
22	270.00	1.0500	827.00	.8000-02	.1000-01	.8361-04	.1016-03	.5600-01	.5300	516.9
22	270.00	1.6200	826.00	.1300-01	.1600-01	.1354-03	.1645-03	.9100-01	.5500	516.8
22	270.00	2.1900	825.00	.1700-01	.2000-01	.1745-03	.2120-03	.1170	.7000	516.5

OH103A.AEDC V41B-V2. LFT AFT DWN FIRING NOZZLE (R4H402)

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	QTWOT DEG. /SEC	TW DEG. R
3	.00000	.00000	822.00	.5100-01	.6200-01	.1051-02	.1267-02	.7880	6.560	527.6
3	.00000	2.4200	833.00	.1700-01	.2000-01	.3410-03	.4097-03	.2600	1.890	515.9
3	90.000	.85000	829.00	.1100-01	.1400-01	.2319-03	.2786-03	.1770	1.740	515.4
3	180.00	1.2800	830.00	.1100-01	.1300-01	.2146-03	.2578-03	.1640	1.610	515.2
3	180.00	1.9900	831.00	.2700-01	.3200-01	.5476-03	.6584-03	.4160	3.130	517.9
3	180.00	2.4200	832.00	.4700-01	.5600-01	.9542-03	.1148-02	.7230	5.430	520.4
3	279.00	.48000	828.00	.1100-01	.1300-01	.2203-03	.2645-03	.1680	1.650	514.0
3	270.00	1.0500	827.00	.1400-01	.1700-01	.2839-03	.3411-03	.2160	2.040	515.6
3	270.00	1.6200	826.00	.1400-01	.1600-01	.2770-03	.3327-03	.2110	1.290	515.2
3	270.00	2.1900	825.00	.1500-01	.1800-01	.3057-03	.3672-03	.2330	1.390	514.8

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	.00000	822.00	.3900-01	.4800-01	.4133-03	.5028-03	.2730	2.290	516.1
44	.00000	2.4200	833.00	.2100-01	.2500-01	.2168-03	.2631-03	.1450	1.060	509.2
44	90.000	.85000	829.00	.1000-01	.1200-01	.1023-03	.1241-03	.6800-01	.6800	508.3
44	180.00	1.2800	830.00	.1000-01	.1200-01	.9581-04	.1211-03	.6700-01	.6600	508.7
44	180.00	1.9900	831.00	.3300-01	.4000-01	.3456-03	.4196-03	.2310	1.740	510.3
44	180.00	2.4200	832.00	.4100-01	.4900-01	.4277-03	.5195-03	.2850	2.150	511.3
44	270.00	.48000	828.00	.7000-02	.8000-02	.7115-04	.8632-04	.4800-01	.4700	507.2
44	270.00	1.0500	827.00	.1000-01	.1200-01	.1013-03	.1229-03	.6800-01	.6400	508.1
44	270.00	1.6200	826.00	.1400-01	.1700-01	.1483-03	.1799-03	.9900-01	.6100	508.2
44	270.00	2.1900	825.00	.1600-01	.1900-01	.1674-03	.2032-03	.1120	.6700	508.2

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	.00000	822.00	.4600-01	.5600-01	.6564-03	.7942-03	.4620	3.870	517.6
51	.00000	2.4200	833.00	.1700-01	.2000-01	.2407-03	.2905-03	.1710	1.250	509.9
51	90.000	.85000	829.00	.1000-01	.1100-01	.1359-03	.1641-03	.9700-01	.9500	509.4
51	180.00	1.2800	830.00	.1100-01	.1300-01	.1571-03	.1897-03	.1120	1.100	509.6
51	180.00	1.9900	831.00	.2900-01	.3500-01	.4190-03	.5060-03	.2980	2.250	510.8
51	180.00	2.4200	832.00	.2700-01	.3300-01	.3856-03	.4659-03	.2730	2.060	512.7
51	270.00	.48000	829.00	.7000-02	.8000-02	.9730-04	.1174-03	.6900-01	.6900	508.0
51	270.00	1.0500	827.00	.1000-01	.1200-01	.1424-03	.1719-03	.1010	.9600	509.5
51	270.00	1.6200	826.00	.1200-01	.1500-01	.1732-03	.2090-03	.1230	.7600	508.6
51	270.00	2.1900	825.00	.1200-01	.1400-01	.1666-03	.2011-03	.1190	.7100	508.1

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HH03)

OH103A,AEDC V418-V2, LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.00000	822.00	.4700-01	.5600-01	.9516-03	.1146-02	.7140	5.960	522.1
72	.00000	2.4200	833.00	.1900-01	.2300-01	.3964-03	.4761-03	.3010	2.200	512.5
72	90.000	.85000	829.00	.1200-01	.1400-01	.2417-03	.2903-03	.1840	1.810	512.3
72	180.00	1.2800	830.00	.1500-01	.1900-01	.3156-03	.3790-03	.2400	2.360	512.2
72	180.00	1.9900	831.00	.3400-01	.4100-01	.7005-03	.8418-03	.5310	4.000	514.5
72	180.00	2.4200	832.00	.3900-01	.4700-01	.7943-03	.9550-03	.6010	4.520	516.3
72	270.00	.48000	828.00	.1400-01	.1700-01	.2808-03	.3372-03	.2140	2.110	511.0
72	270.00	1.0500	827.00	.1700-01	.2000-01	.3393-03	.4075-03	.2580	2.430	512.8
72	270.00	1.6200	826.00	.1400-01	.1700-01	.2867-03	.3442-03	.2180	1.340	511.0
72	270.00	2.1900	825.00	.1500-01	.1800-01	.3005-03	.3607-03	.2290	1.370	510.4

OH103A,AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE (R4HH04)

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	.00000	.00000	822.00	.4500-01	.5500-01	.4778-03	.5799-03	.3260	2.730	518.3
25	.00000	2.4200	833.00	.1800-01	.2100-01	.1843-03	.2233-03	.1270	.9300	513.2
25	90.000	.85000	829.00	.8000-02	.9000-02	.8130-04	.9848-04	.5600-01	.5500	512.1
25	180.00	1.2800	830.00	.1000-01	.1200-01	.1024-03	.1241-03	.7100-01	.6900	512.3
25	180.00	1.9900	831.00	.2900-01	.3500-01	.3008-03	.3645-03	.2070	1.560	513.6
25	180.00	2.4200	832.00	.2900-01	.3500-01	.3048-03	.3695-03	.2090	1.580	514.4
25	270.00	.48000	828.00	.5000-02	.6000-02	.4932-04	.5972-04	.3400-01	.3300	511.3
25	270.00	1.0500	827.00	.7000-02	.9000-02	.7791-04	.9436-04	.5400-01	.5100	511.8
25	270.00	1.6200	826.00	.1100-01	.1300-01	.1128-03	.1366-03	.7800-01	.4800	511.6
25	270.00	2.1900	825.00	.1300-01	.1600-01	.1393-03	.1687-03	.9600-01	.5700	511.3

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.00000	822.00	.5400-01	.6500-01	.1094-02	.1319-02	.8180	6.810	528.0
7	.00000	2.4200	833.00	.1700-01	.2000-01	.3377-03	.4065-03	.2540	1.850	522.4
7	90.000	.85000	829.00	.1000-01	.1300-01	.2130-03	.2564-03	.1610	1.570	521.7
7	180.00	1.2800	830.00	.1300-01	.1500-01	.2551-03	.3070-03	.1920	1.890	521.4
7	180.00	1.9900	831.00	.3300-01	.3900-01	.6677-03	.8039-03	.5030	3.770	522.8
7	180.00	2.4200	832.00	.4400-01	.5300-01	.8935-03	.1076-02	.6730	5.050	522.7
7	270.00	.48000	828.00	.1000-01	.1300-01	.2120-03	.2552-03	.1600	1.570	521.0
7	270.00	1.0500	827.00	.1500-01	.1800-01	.3052-03	.3674-03	.2300	2.160	521.7
7	270.00	1.6200	826.00	.1100-01	.1400-01	.2314-03	.2784-03	.1750	1.070	519.6
7	270.00	2.1900	825.00	.1600-01	.1900-01	.3246-03	.3905-03	.2460	1.460	519.3

OH103A.AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE (R4HH05)

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	.00000	.00000	822.00	.4600-01	.5600-01	.4829-03	.5860-03	.3310	2.760	520.5
28	.00000	2.4200	833.00	.1800-01	.2100-01	.1848-03	.2239-03	.1270	.9300	515.9
28	90.000	.85000	829.00	.8000-02	.9000-02	.8073-04	.9780-04	.5600-01	.5500	514.7
28	180.00	1.2800	830.00	.1100-01	.1400-01	.1190-03	.1441-03	.8200-01	.8100	515.2
28	180.00	1.9900	831.00	.2900-01	.3500-01	.2991-03	.3625-03	.2060	1.550	516.1
28	180.00	2.4200	832.00	.3500-01	.4200-01	.3648-03	.4422-03	.2510	1.890	516.4
28	270.00	.48000	828.00	.5000-02	.6000-02	.5265-04	.6376-04	.3600-01	.3600	513.9
28	270.00	1.0500	827.00	.7000-02	.9000-02	.7429-04	.8999-04	.5100-01	.4800	514.4
28	270.00	1.6200	826.00	.9000-02	.1100-01	.9713-04	.1176-03	.6700-01	.4100	514.2
28	270.00	2.1900	825.00	.1400-01	.1600-01	.1418-03	.1718-03	.9800-01	.5800	514.0

OH103A.AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	.00000	.00000	822.00	.4200-01	.5100-01	.6016-03	.7280-03	.4250	3.550	520.5
54	.00000	2.4200	833.00	.1600-01	.1900-01	.2276-03	.2749-03	.1620	1.180	513.5
54	90.000	.85000	829.00	.1000-01	.1200-01	.1401-03	.1692-03	.1000+00	.9800	513.4
54	180.00	1.2800	830.00	.1100-01	.1400-01	.1636-03	.1976-03	.1170	1.150	514.1
54	180.00	1.9900	831.00	.2700-01	.3300-01	.3855-03	.4657-03	.2740	2.070	514.7
54	180.00	2.4200	832.00	.2500-01	.3000-01	.3528-03	.4264-03	.2510	1.890	515.7
54	270.00	.48000	828.00	.7000-02	.8000-02	.9692-04	.1170-03	.6900-01	.6800	512.5
54	270.00	1.0500	827.00	.8000-02	.1000-01	.1202-03	.1451-03	.8600-01	.8100	513.5
54	270.00	1.6200	826.00	.1000-01	.1200-01	.1397-03	.1687-03	.1000+00	.6100	512.4
54	270.00	2.1900	825.00	.1000-01	.1200-01	.1401-03	.1691-03	.1000+00	.6000	512.1

OH103A,AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE (R4H#05)

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(P) =.040
73	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.00000	822.00	.4300-01	.5200-01	.8770-03	.1056-02	.6620	5.520	522.9
73	.00000	2.4200	833.00	.2000-01	.2400-01	.4056-03	.4870-03	.3100	2.260	513.8
73	90.000	.85000	829.00	.1200-01	.1400-01	.2385-03	.2864-03	.1820	1.790	513.2
73	180.00	1.2800	830.00	.1600-01	.1900-01	.3200-03	.3843-03	.2440	2.460	514.2
73	180.00	1.9900	831.00	.3500-01	.4200-01	.7211-03	.8664-03	.5490	4.140	515.7
73	180.00	2.4200	832.00	.3400-01	.4100-01	.7026-03	.8445-03	.5340	4.020	517.2
73	270.00	.48000	828.00	.1200-01	.1500-01	.2531-03	.3038-03	.1940	1.910	512.8
73	270.00	1.0500	827.00	.1600-01	.1900-01	.3206-03	.3850-03	.2450	2.310	513.8
73	270.00	1.6200	826.00	.1300-01	.1500-01	.2629-03	.3156-03	.2010	1.230	512.2
73	270.00	2.1900	825.00	.1300-01	.1500-01	.2550-03	.3061-03	.1950	1.160	511.8

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	.00000	.00000	822.00	.4800-01	.5800-01	.5006-03	.6094-03	.3320	2.770	520.3
40	.00000	2.4200	833.00	.1900-01	.2300-01	.1985-03	.2412-03	.1330	.9700	514.3
40	90.000	.85000	829.00	.9000-02	.1100-01	.9326-04	.1133-03	.6200-01	.6100	512.9
40	180.00	1.2800	830.00	.1400-01	.1700-01	.1438-03	.1747-03	.9600-01	.9500	513.5
40	180.00	1.9900	831.00	.2800-01	.3300-01	.2868-03	.3485-03	.1920	1.440	514.7
40	180.00	2.4200	832.00	.4200-01	.5000-01	.4329-03	.5260-03	.2890	2.180	514.8
40	270.00	.48000	828.00	.6000-02	.8000-02	.6508-04	.7901-04	.4400-01	.4300	512.0
40	270.00	1.0500	827.00	.9000-02	.1100-01	.9276-04	.1126-03	.6200-01	.5900	512.6
40	270.00	1.6200	826.00	.1100-01	.1300-01	.1142-03	.1387-03	.7700-01	.4700	512.6
40	270.00	2.1900	825.00	.1700-01	.2100-01	.1815-03	.2204-03	.1220	.7200	512.6

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU' LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
10	.00000	.00000	822.00	.4300-01	.5100-01	.8718-03	.1050-02	.6550	5.460	525.8
10	.00000	2.4200	833.00	.1900-01	.2300-01	.3911-03	.4703-03	.2970	2.160	519.3
10	90.000	.85000	829.00	.1200-01	.1400-01	.2375-03	.2856-03	.1800	1.770	518.8
10	180.00	1.2800	830.00	.1500-01	.1800-01	.3055-03	.3674-03	.2320	2.270	519.2
10	180.00	1.9900	831.00	.3400-01	.4100-01	.7032-03	.8458-03	.5330	4.000	520.2
10	180.00	2.4200	832.00	.3400-01	.4100-01	.6908-03	.8311-03	.5230	3.930	521.1
10	270.00	.48000	828.00	.1200-01	.1400-01	.2384-03	.2867-03	.1810	1.780	518.6
10	270.00	1.0500	827.00	.1500-01	.1600-01	.3096-03	.3723-03	.2350	2.210	518.9
10	270.00	1.6200	826.00	.1200-01	.1400-01	.2421-03	.2910-03	.1840	1.120	517.1
10	270.00	2.1900	825.00	.1300-01	.1500-01	.2573-03	.3091-03	.1960	1.160	516.3

OH103A,AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
31	7.880	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	.00000	.00000	822.00	.3900-01	.4700-01	.4062-03	.4929-03	.2780	2.320	519.8
31	.00000	2.4200	833.00	.1700-01	.2000-01	.1748-03	.2118-03	.1210	.8800	515.2
31	90.000	.85000	829.00	.7000-02	.9000-02	.7309-04	.8853-04	.5000-01	.5000	513.8
31	180.00	1.2800	830.00	.9000-02	.1100-01	.9670-04	.1196-03	.6800-01	.6700	514.5
31	180.00	1.9900	831.00	.2600-01	.3100-01	.2696-03	.3267-03	.1860	1.400	515.4
31	180.00	2.4200	832.00	.3000-01	.3600-01	.3127-03	.3791-03	.2150	1.620	516.7
31	270.00	.48000	828.00	.4000-02	.5000-02	.4025-04	.4875-04	.2800-01	.2700	513.2
31	270.00	1.0500	827.00	.6000-02	.8000-02	.6512-04	.7887-04	.4500-01	.4200	513.7
31	270.00	1.6200	826.00	.1000-01	.1200-01	.1005-03	.1217-03	.6900-01	.4200	513.5
31	270.00	2.1900	825.00	.1000-01	.1200-01	.1029-03	.1246-03	.7100-01	.4200	513.3

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTHDT DEG. /SEC	TW DEG. R
58	.00000	.00000	822.00	.4100-01	.5000-01	.5921-03	.7167-03	.4160	3.480	518.5
58	.00000	2.4200	833.00	.1600-01	.2000-01	.2341-03	.2827-03	.1660	1.210	510.8
58	90.000	.85000	829.00	.1000-01	.1200-01	.1422-03	.1717-03	.1010	1.000	510.3
58	180.00	1.2800	830.00	.1200-01	.1400-01	.1725-03	.2084-03	.1220	1.210	511.3
58	180.00	1.9900	831.00	.2700-01	.3300-01	.3938-03	.4757-03	.2790	2.110	511.9
58	180.00	2.4200	832.00	.2100-01	.2500-01	.2964-03	.3582-03	.2100	1.580	513.1
58	270.00	.48000	828.00	.8000-02	.1000-01	.1149-03	.1387-03	.8200-01	.8100	509.6
58	270.00	1.0500	827.00	.9000-02	.1100-01	.1320-03	.1594-03	.9400-01	.8900	510.2
58	270.00	1.6200	826.00	.1000-01	.1200-01	.1442-03	.1740-03	.1030	.6300	509.3
58	270.00	2.1900	825.00	.9000-02	.1100-01	.1366-03	.1649-03	.9700-01	.5800	509.1

OH103A,AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.00000	822.00	.4300-01	.5200-01	.8810-03	.1062-02	.6620	5.500	527.8
13	.00000	2.4200	833.00	.1900-01	.2300-01	.3892-03	.4680-03	.2950	2.150	519.7
13	90.000	.85000	829.00	.1100-01	.1400-01	.2303-03	.2770-03	.1750	1.720	519.2
13	180.00	1.2800	830.00	.1400-01	.1600-01	.2773-03	.3335-03	.2100	2.060	520.0
13	180.00	1.9900	831.00	.3200-01	.3900-01	.6542-03	.7871-03	.4960	3.720	521.2
13	180.00	2.4200	832.00	.3200-01	.3900-01	.6567-03	.7903-03	.4970	3.730	521.9
13	270.00	.48000	828.00	.1100-01	.1400-01	.2336-03	.2809-03	.1770	1.740	519.6
13	270.00	1.0500	827.00	.1200-01	.1400-01	.2354-03	.2831-03	.1790	1.680	519.8
13	270.00	1.6200	826.00	.1200-01	.1400-01	.2357-03	.2833-03	.1790	1.090	518.3
13	270.00	2.1900	825.00	.1200-01	.1400-01	.2441-03	.2934-03	.1860	1.100	517.8

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NU	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	.00000	.00000	822.00	.4100-01	.5000-01	.4315-03	.5250-03	.2850	2.380	516.9
43	.00000	2.4200	833.00	.1900-01	.2300-01	.1950-03	.2368-03	.1300	.9500	511.5
43	90.000	.85000	829.00	.8000-02	.9000-02	.7930-04	.9629-04	.5300-01	.5200	510.0
43	180.00	1.2800	830.00	.1000-01	.1200-01	.1048-03	.1273-03	.7000-01	.6900	510.8
43	180.00	1.9900	831.00	.2800-01	.3400-01	.2952-03	.3586-03	.1970	1.480	511.7
43	180.00	2.4200	832.00	.1700-01	.2100-01	.1786-03	.2170-03	.1190	.9000	512.5
43	270.00	.48000	828.00	.5000-02	.6000-02	.5058-04	.6139-04	.3400-01	.3300	509.2
43	270.00	1.0500	827.00	.8000-02	.9000-02	.7897-04	.9588-04	.5300-01	.5000	509.8
43	270.00	1.6200	826.00	.1200-01	.1500-01	.1252-03	.1520-03	.8400-01	.5100	509.6
43	270.00	2.1900	825.00	.1000-01	.1200-01	.1063-03	.1291-03	.7100-01	.4200	509.7

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.00000	822.00	.4500-01	.5500-01	.4719-03	.5728-03	.3220	2.690	518.4
34	.00000	2.4200	833.00	.2000-01	.2400-01	.2109-03	.2556-03	.1450	1.060	513.8
34	90.000	.85000	829.00	.7000-02	.9000-02	.7719-04	.9350-04	.5300-01	.5200	512.0
34	180.00	1.2800	830.00	.1300-01	.1600-01	.1390-03	.1685-03	.9600-01	.9400	512.8
34	180.00	1.9900	831.00	.2600-01	.3100-01	.2673-03	.3240-03	.1830	1.380	513.6
34	180.00	2.4200	832.00	.3900-01	.4800-01	.4104-03	.4974-03	.2820	2.120	513.6
34	270.00	.48000	828.00	.6000-02	.7000-02	.6268-04	.7592-04	.4300-01	.4200	511.3
34	270.00	1.0500	827.00	.8000-02	.1000-01	.8805-04	.1066-03	.6100-01	.5700	511.8
34	270.00	1.6200	826.00	.1000-01	.1200-01	.1021-03	.1237-03	.7000-01	.4300	511.6
34	270.00	2.1900	825.00	.1600-01	.1900-01	.1679-03	.2033-03	.1160	.6900	511.6

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	.00000	822.00	.4000-01	.4800-01	.5662-03	.6849-03	.3990	3.340	517.5
61	.00000	2.4200	833.00	.1800-01	.2100-01	.2530-03	.3054-03	.1800	1.320	510.4
61	90.000	.85000	829.00	.9000-02	.1000-01	.1234-03	.1489-03	.8900-01	.8700	509.4
61	180.00	1.2800	830.00	.1000-01	.1200-01	.1407-03	.1699-03	.1000+00	.9900	509.9
61	180.00	1.9900	831.00	.2600-01	.3200-01	.3768-03	.4550-03	.2680	2.030	510.8
61	180.00	2.4200	832.00	.2000-01	.2400-01	.2815-03	.3400-03	.2000	1.510	512.1
61	270.00	.48000	828.00	.8000-02	.1000-01	.1131-03	.1365-03	.8100-01	.8000	509.2
61	270.00	1.0500	827.00	.8000-02	.1000-01	.1204-03	.1453-03	.8600-01	.8100	509.5
61	270.00	1.6200	826.00	.9000-02	.1100-01	.1322-03	.1595-03	.9400-01	.5800	508.5
61	270.00	2.1900	825.00	.1000-01	.1200-01	.1367-03	.1649-03	.9800-01	.5800	508.6

OH103A,AEDC V41B-V2, LFT AFT DWN FIRING NOZZLE

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.00000	822.00	.4300-01	.5200-01	.8850-03	.1065-02	.6700	5.590	523.3
16	.00000	2.4200	833.00	.1800-01	.2200-01	.3718-03	.4464-03	.2850	2.080	514.4
16	90.000	.85000	829.00	.1100-01	.1300-01	.2161-03	.2594-03	.1660	1.630	513.6
16	180.00	1.2800	830.00	.1300-01	.1600-01	.2641-03	.3172-03	.2020	1.990	515.0
16	180.00	1.9900	831.00	.2900-01	.3400-01	.5838-03	.7012-03	.4470	3.360	515.9
16	180.00	2.4200	832.00	.3000-01	.3600-01	.6073-03	.7295-03	.4640	3.490	516.5
16	270.00	.48000	828.00	.1300-01	.1600-01	.2718-03	.3263-03	.2080	2.050	513.7
16	270.00	1.0500	827.00	.1000-01	.1200-01	.2079-03	.2496-03	1590	1.500	513.8
16	270.00	1.6200	826.00	.9000-02	.1100-01	.1902-03	.2283-03	.1460	.8900	512.7
16	270.00	2.1900	825.00	.1400-01	.1600-01	.2758-03	.3310-03	.2120	1.260	512.7

OH103A,AEDC V41B-V2, LFT AFT OMN FIRING NOZZLE (R4H410)

LFT AFT OMN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.00000	822.00	.5400-01	.6600-01	.5675-03	.6900-03	.3810	3.180	519.9
37	.00000	2.4200	833.00	.4100-01	.5000-01	.4278-03	.5191-03	.2890	2.110	514.1
37	90.000	.85000	829.00	.2800-01	.3400-01	.2896-03	.3513-03	.1960	1.930	512.8
37	180.00	1.2800	830.00	.2800-01	.3400-01	.2941-03	.3569-03	.1990	1.960	514.5
37	180.00	1.9900	831.00	.5100-01	.6200-01	.5291-03	.6421-03	.3580	2.700	514.5
37	180.00	2.4200	832.00	.3600-01	.4400-01	.3785-03	.4595-03	.2560	1.930	515.2
37	270.00	.48000	828.00	.3600-01	.4400-01	.3755-03	.4555-03	.2540	2.500	512.9
37	270.00	1.0500	827.00	.2800-01	.3300-01	.2878-03	.3491-03	.1950	1.840	513.1
37	270.00	1.6200	826.00	.2300-01	.2800-01	.2412-03	.2926-03	.1640	1.000	512.6
37	270.00	2.1900	825.00	.1900-01	.2300-01	.1991-03	.2415-03	.1350	.8000	512.4

OH103A,AEDC V-1B-V2. LFT AFT DWN FIRING NOZZLE (R4HH10)

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.00000	822.00	.6900-01	.8400-01	.9975-03	.1207-02	.7030	5.870	519.0
64	.00000	2.4200	833.00	.7700-01	.9300-01	.1108-02	.1339-02	.7900	5.780	510.6
64	90.000	.85000	829.00	.5800-01	.7000-01	.8361-03	.1009-02	.5970	5.890	509.5
64	180.00	1.2800	830.00	.7300-01	.8800-01	.1048-02	.1265-02	.7460	7.350	511.4
64	180.00	1.9900	831.00	.7800-01	.9500-01	.1131-02	.1366-02	.8060	6.080	511.4
64	180.00	2.4200	832.00	.8200-01	.1000+00	.1190-02	.1437-02	.8470	6.390	512.1
64	270.00	.48000	828.00	.8200-01	.9900-01	.1181-02	.1425-02	.8430	8.300	510.1
64	270.00	1.0500	827.00	.6100-01	.7300-01	.8745-03	.1055-02	.6240	5.900	509.8
64	270.00	1.6200	826.00	.3900-01	.4700-01	.5676-03	.6847-03	.4060	2.490	508.6
64	270.00	2.1900	825.00	.2900-01	.3400-01	.4120-03	.4970-03	.2950	1.760	508.7

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.00000	822.00	.3700-01	.4500-01	.7612-03	.9160-03	.5750	4.800	520.9
19	.00000	2.4200	833.00	.2100-01	.2500-01	.4310-03	.5174-03	.3290	2.410	511.7
19	90.000	.85000	829.00	.1200-01	.1400-01	.2447-03	.2936-03	.1870	1.840	510.6
19	180.00	1.2800	830.00	.1400-01	.1700-01	.2691-03	.3470-03	.2210	2.180	511.6
19	180.00	1.9900	831.00	.2900-01	.3500-01	.6018-03	.7226-03	.4590	3.460	512.9
19	180.00	2.4200	832.00	.3200-01	.3800-01	.6441-03	.7737-03	.4900	3.700	514.5
19	270.00	.48000	828.00	.1500-01	.1800-01	.3022-03	.3627-03	.2310	2.280	510.9
19	270.00	1.0500	827.00	.1100-01	.1300-01	.2238-03	.2686-03	.1710	1.620	510.6
19	270.00	1.6200	826.00	.1000-01	.1200-01	.2026-03	.2431-03	.1550	.9500	509.6
19	270.00	2.1900	825.00	.1200-01	.1500-01	.2471-03	.2964-03	.1890	1.130	509.2

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	.00000	.00000	822.00	.4200-01	.5100-01	.4325-03	.5270-03	.2830	2.360	517.4
70	.00000	2.4200	833.00	.2100-01	.2600-01	.2147-03	.2612-03	.1410	1.030	513.4
70	90.000	.85000	829.00	.8000-02	.1000-01	.8579-04	.1043-03	.5700-01	.5600	511.7
70	180.00	1.2800	830.00	.1200-01	.1500-01	.1247-03	.1517-03	.8200-01	.8100	512.5
70	180.00	1.9900	831.00	.2400-01	.2900-01	.2424-03	.2949-03	.1590	1.200	513.1
70	180.00	2.4200	832.00	.3800-01	.4600-01	.3898-03	.4743-03	.2560	1.930	513.7
70	270.00	.48000	828.00	.6000-02	.8000-02	.6543-04	.7955-04	.4300-01	.4300	511.2
70	270.00	1.0500	827.00	.9000-02	.1100-01	.9147-04	.1112-03	.6000-01	.5700	511.7
70	270.00	1.6200	826.00	.9000-02	.1100-01	.9286-04	.1129-03	.6100-01	.3700	511.4
70	270.00	2.1900	825.00	.1500-01	.1800-01	.1523-03	.1851-03	.1000+00	.6000	511.3

LFT AFT DWN FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.00000	822.00	.4000-01	.4800-01	.5712-03	.6898-03	.4070	3.410	513.1
67	.00000	2.4200	833.00	.1900-01	.2300-01	.2777-03	.3347-03	.2000	1.460	506.3
67	90.000	.85000	829.00	.1000-01	.1200-01	.1383-03	.1666-03	.1000+00	.9800	504.8
67	180.00	1.2800	830.00	.1200-01	.1400-01	.1715-03	.2067-03	.1230	1.220	506.0
67	180.00	1.9900	831.00	.2800-01	.3400-01	.3992-03	.4812-03	.2870	2.170	506.7
67	180.00	2.4200	832.00	.2900-01	.3600-01	.4221-03	.5090-03	.3030	2.290	507.9
67	270.00	.48000	828.00	.1000-01	.1200-01	.1412-03	.1702-03	.1020	1.010	504.8
67	270.00	1.0500	827.00	.1000-01	.1200-01	.1368-03	.1648-03	.9900-01	.9300	505.0
67	270.00	1.6200	826.00	.1000-01	.1200-01	.1380-03	.1663-03	.1000+00	.6100	504.4
67	270.00	2.1900	825.00	.9000-02	.1100-01	.1286-03	.1549-03	.9300-01	.5500	504.6

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4H101)

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24.98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
45	.00000	.57000	835.00	.2000-01	.2400-01	.2063-03	.2503-03	.1390	1.120	510.0
45	90.000	1.1400	836.00	.2300-01	.2800-01	.2449-03	.2972-03	.1640	1.310	510.3
45	180.00	1.1900	837.00	.2100-01	.2600-01	.2237-03	.2717-03	.1500	1.210	513.3
45	180.00	1.2000	838.00	.3200-01	.3900-01	.3322-03	.4033-03	.2230	1.800	511.2
45	270.00	1.1900	834.00	.1700-01	.2100-01	.1770-03	.2149-03	.1190	.9600	511.6

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	.57000	835.00	.1000-01	.1200-01	.1480-03	.1784-03	.1070	.8700	511.9
48	90.000	1.1400	836.00	.2100-01	.2600-01	.3060-03	.3690-03	.2220	1.760	512.1
48	180.00	1.1900	837.00	.2100-01	.2600-01	.3085-03	.3723-03	.2230	1.800	515.4
48	180.00	1.2000	838.00	.2100-01	.2500-01	.2959-03	.3568-03	.2140	1.730	512.9
48	270.00	1.1900	834.00	.1400-01	.1600-01	.1958-03	.2361-03	.1420	1.150	512.4

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.57000	835.00	.1000-01	.1300-01	.2126-03	.2561-03	.1580	1.270	520.6
71	90.000	1.1400	836.00	.1900-01	.2200-01	.3795-03	.4573-03	.2820	2.230	521.5
71	180.00	1.1900	837.00	.2100-01	.2500-01	.4309-03	.5196-03	.3190	2.560	523.6
71	180.00	1.2000	838.00	.1800-01	.2200-01	.3745-03	.4514-03	.2780	2.240	521.6
71	270.00	1.1900	834.00	.1300-01	.1600-01	.2687-03	.3238-03	.2000	1.610	520.6

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	90.000	1.1400	836.00	.2400-01	.2900-01	.2498-03	.3037-03	.1670	1.320	518.3
22	180.00	1.1900	837.00	.2400-01	.2900-01	.2533-03	.3082-03	.1690	1.360	521.3
22	180.00	1.2000	838.00	.1700-01	.2000-01	1736-03	.2112-03	.1160	.9300	519.6
22	270.00	1.1900	834.00	.1700-01	.2000-01	.1760-03	.2140-03	.1170	.9500	519.4

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	.57000	835.00	.9000-02	.1100-01	.1815-03	.2182-03	.1380	1.110	518.6
3	90.000	1.1400	836.00	.1900-01	.2300-01	.3908-03	.4698-03	.2970	2.350	518.0
3	180.00	1.1900	837.00	.2100-01	.2500-01	.4281-03	.5153-03	.3230	2.600	522.8
3	180.00	1.2000	838.00	.2000-01	.2400-01	.4087-03	.4915-03	.3100	2.500	519.3
3	270.00	1.1900	834.00	.1500-01	.1800-01	.3023-03	.3636-03	.2290	1.850	519.5

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	.57000	835.00	.2000-02	.3000-02	.2199-04	.2670-04	.1500-01	.1200	510.2
44	90.000	1.1400	836.00	.2600-01	.3100-01	.2708-03	.3288-03	.1810	1.440	509.8
44	180.00	1.1900	837.00	.2400-01	.3000-01	.2551-03	.3100-03	.1700	1.370	512.7
44	180.00	1.2000	838.00	.1700-01	.2000-01	.1766-03	.2145-03	.1180	.9500	511.5
44	270.00	1.1900	834.00	.1900-01	.2300-01	.1976-03	.2400-03	.1320	1.070	510.8

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	.57000	835.00	.1000-01	.1200-01	.1433-03	.1730-03	.1020	.8200	510.5
51	90.000	1.1400	836.00	.2100-01	.2600-01	.3028-03	.3656-03	.2150	1.710	510.5
51	180.00	1.1900	837.00	.2100-01	.2500-01	.2934-03	.3546-03	.2080	1.680	513.8
51	180.00	1.2000	838.00	.1900-01	.2200-01	.2652-03	.3203-03	.1880	1.520	511.2
51	270.00	1.1900	834.00	.1400-01	.1700-01	.1963-03	.2395-03	.1410	1.140	511.0

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.57000	835.00	.6000-02	.7000-02	.1224-03	.1470-03	.9300-01	.7500	513.5
72	90.000	1.1400	836.00	.2300-01	.2800-01	.4721-03	.5673-03	.3580	2.840	514.0
72	180.00	1.1900	837.00	.2100-01	.2500-01	.4248-03	.5108-03	.3210	2.590	517.0
72	180.00	1.2000	838.00	.1900-01	.2300-01	.3959-03	.4758-03	.3000	2.420	514.5
72	270.00	1.1900	834.00	.1500-01	.1800-01	.3120-03	.3749-03	.2370	1.910	513.9

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	.00000	.57000	835.00	.1400-01	.1700-01	.1496-03	.1812-03	.1030	.8300	513.4
25	90.000	1.1400	836.00	.2200-01	.2700-01	.2356-03	.2855-03	.1620	1.290	513.2
25	180.00	1.1900	837.00	.2200-01	.2700-01	.2321-03	.2815-03	.1590	1.280	516.1
25	180.00	1.2000	838.00	.2700-01	.3300-01	.2628-03	.3427-03	.1940	1.570	513.6
25	270.00	1.1900	834.00	.1600-01	.1900-01	.1645-03	.1994-03	.1130	.9100	514.3

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE (R4H104)

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.57000	835.00	.1300-01	.1500-01	.2561-03	.3079-03	.1940	1.570	517.6
7	90.000	1.1400	836.00	.2000-01	.2400-01	.4140-03	.4980-03	.3130	2.480	518.8
7	180.00	1.1900	837.00	.1900-01	.2200-01	.3788-03	.4558-03	.2860	2.300	520.7
7	180.00	1.2000	838.00	.2600-01	.3100-01	.5220-03	.6279-03	.3950	3.180	519.5
7	270.00	1.1900	834.00	.1300-01	.1500-0.	.2580-03	.3103-03	.1960	1.580	517.9

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	.00000	.57000	835.00	.1400-01	.1700-01	.1506-03	.1825-03	.1040	.8400	515.3
28	90.000	1.1400	836.00	.2100-01	.2600-01	.2209-03	.2676-03	.1530	1.210	515.1
28	180.00	1.1900	837.00	.1800-01	.2200-01	.1897-03	.2300-03	.1310	1.050	517.2
28	180.00	1.2000	838.00	.3100-01	.3700-01	.3188-03	.3863-03	.2200	1.780	515.8
28	270.00	1.1900	834.00	.1500-01	.1900-01	.1600-03	.1940-03	.1100	.8900	516.2

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	.00000	.57000	835.00	.1000-01	.1200-01	.1466-03	.1771-03	.1040	.8400	513.9
54	90.000	1.1400	836.00	.2100-01	.2600-01	.3038-03	.3670-03	.2160	1.720	514.1
54	180.00	1.1900	837.00	.1800-01	.2100-01	.2523-03	.3049-03	.1790	1.450	516.5
54	180.00	1.2000	838.00	.1900-01	.2300-01	.2754-03	.3327-03	.1960	1.580	514.4
54	270.00	1.1900	834.00	.1400-01	.1700-01	.2061-03	.2490-03	.1470	1.180	515.2

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OH103A ORBITER MODEL 83-O HEATING DATA

(R4H105)

OH103A.AEOC V41B-V2, LFT LWR SILE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T - DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) =.040
73	.2125-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.57000	835.00	.6000-02	.7000-02	.1146-03	.1376-03	.8800-01	.7100	514.1
73	90.000	1.1400	836.00	.2400-01	.2900-01	.4878-03	.5860-03	.3720	2.950	515.1
73	180.00	1.1900	837.00	.1700-01	.2000-01	.3460-03	.4158-03	.2630	2.120	516.6
73	180.00	1.2000	838.00	.1500-01	.1800-01	.3138-03	.3770-03	.2390	1.930	515.3
73	270.00	1.1900	834.00	.1400-01	.1700-01	.2889-03	.3470-03	.2200	1.780	514.7

OH103A.AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE (R4H106)

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) *.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	.00000	.57000	835.00	.1800-01	.2200-01	.1856-03	.2256-03	.1240	1.000	514.3
40	90.000	1.1400	836.00	.2100-01	.2500-01	.2151-03	.2613-03	.1440	1.140	514.2
40	180.00	1.1900	837.00	.1800-01	.2200-01	.1913-03	.2327-03	.1270	1.030	517.1
40	180.00	1.2000	838.00	.2600-01	.3100-01	.2698-03	.3279-03	.1800	1.450	515.2
40	270.00	1.1900	834.00	.1600-01	.2000-01	.1705-03	.2072-03	.1140	.9200	515.7

OH103A.AEDC V41B-V2. LFT LWR SIDE FIRING NOZZLE (R4H106)

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
10	7.970	35.03	337.9	1278.	93.20	.3550-01	1.577	3772.	.1027-02	.7502-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
10.	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
10	.00000	.57000	835.00	.5000-02	.6000-02	.1041-03	.1251-03	.7900-01	.6400	515.7
10	90.000	1.1400	836.00	.2300-01	.2800-01	.4760-03	.5721-03	.3620	2.870	516.8
10	180.00	..1900	837.00	.1700-01	.2100-01	.3501-03	.4208-03	.2660	2.150	517.4
10	180.00	1.2000	838.00	.1500-01	.1800-01	.3095-03	.3720-03	.2350	1.900	517.7
10	270.00	1.1900	834.00	.1400-01	.1700-01	.2895-03	.3478-03	.2210	1.780	515.9

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 10⁶	HREF BTU/R FT2SEC
31	7.880	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	.00000	.57000	835.00	.1000-01	.1200-01	.9905-04	.1200-03	.6800-01	.5500	514.5
31	90.000	1.1400	836.00	.2000-01	.2400-01	.2082-03	.2522-03	.1440	1.140	514.5
31	180.00	1.1900	837.00	.1600-01	.1900-01	.1635-03	.1982-03	.1120	.9100	516.8
31	180.00	1.2000	838.00	.2200-01	.2600-01	.2261-03	.2740-03	.1560	1.260	515.8
31	270.00	1.1900	834.00	.1400-01	.1700-01	.1424-03	.1725-03	.9800-01	.7900	515.5

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OH103A ORBITER MODEL 83-O HEATING DATA

(R4H107)

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 10E	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	.00000	.57000	835.00	.8000-02	.9000-02	.1087-03	.1313-03	.7700-01	.6200	511.4
58	90.000	1.1400	836.00	.2100-01	.2500-01	.3001-03	.3625-03	.2130	1.690	511.9
58	180.00	1.1900	837.00	.1600-01	.1900-01	.2263-03	.2735-03	.1600	1.290	514.1
58	180.00	1.2000	838.00	.1600-01	.1900-01	.2281-03	.2756-03	.1620	1.310	512.1
58	270.00	1.1900	834.00	.1400-01	.1700-01	.2077-03	.2510-03	.1470	1.190	513.0

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.57000	835.00	.5000-02	.6000-02	.1082-03	.1300-03	.8200-01	.6600	517.6
13	90.000	1.1400	836.00	.2300-01	.2800-01	.4680-03	.5626-03	.3560	2.820	518.5
13	180.00	1.1900	837.00	.1500-01	.1800-01	.3076-03	.3699-03	.2330	1.880	520.3
13	180.00	1.2000	838.00	.1600-01	.1900-01	.3282-03	.3947-03	.2490	2.010	519.4
13	270.00	1.1900	834.00	.1300-01	.1600-01	.2710-03	.3257-03	.2060	1.660	518.4

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO REF(R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	.00000	.57000	835.00	.5000-02	.6000-02	.5071-04	.6160-04	.3400-01	.2700	511.6
43	90.000	1.1400	836.00	.2200-01	.2700-01	.2316-03	.2813-03	.1540	1.230	511.4
43	180.00	1.1900	837.00	.1800-01	.2200-01	.1883-03	.2289-03	.1250	1.010	514.3
43	180.00	1.2000	838.00	.1900-01	.2300-01	.1933-03	.2349-03	.1290	1.040	512.6
43	270.00	1.1900	834.00	.1500-01	.1800-01	.1570-03	.1908-03	.1040	.8400	512.8

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.57000	835.00	.1700-01	.2000-01	.1732-03	.2099-03	.1190	.9600	512.9
34	90.000	1.1400	836.00	.2000-01	.2400-01	.2063-03	.2500-03	.1420	1.130	513.1
34	180.00	1.1900	837.00	.1500-01	.1800-01	.1562-03	.1894-03	.1070	.8600	515.4
34	180.00	1.2000	838.00	.2600-01	.3100-01	.2674-03	.3241-03	.1830	1.480	513.8
34	270.00	1.1900	834.00	.1500-01	.1900-01	.1601-03	.1941-03	.1100	.8900	514.2

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE (R4H109)

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	.57000	835.00	.8000-02	.9000-02	.1101-03	.1329-03	.7800-01	.6300	510.3
61	90.000	1.1400	836.00	.2000-01	.2500-01	.2913-03	.3517-03	.2070	1.650	510.7
61	180.00	1.1900	837.00	.1600-01	.2000-01	.2330-03	.2815-03	.1650	1.340	512.8
61	180.00	1.2000	838.00	.1400-01	.1700-01	.2066-03	.2495-03	.1470	1.190	511.1
61	270.00	1.1900	834.00	.1400-01	.1700-01	.1959-03	.2365-03	.1390	1.130	511.8

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 10⁶	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.57000	835.00	.1100-01	.1300-01	.2270-03	.2725-03	.1740	1.410	513.4
16	90.000	1.1400	836.00	.2100-01	.2500-01	.4249-03	.5102-03	.3250	2.580	514.7
16	180.00	1.1900	837.00	.1600-01	.2000-01	.3358-03	.4034-03	.2570	2.070	516.8
16	180.00	1.2000	838.00	.2000-01	.2400-01	.4123-03	.4950-03	.3160	2.550	514.8
16	270.00	1.1900	834.00	.1300-01	.1500-01	.2576-03	.3094-03	.1970	1.590	515.0

OH103A,AEDC V41B-V2. LFT LWR SIDE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.57000	835.00	.2000-01	.2400-01	.2036-03	.2471-03	.1380	1.110	514.4
37	90.000	1.1400	836.00	.4000-01	.4900-01	.4170-03	.5061-03	.2820	2.240	514.1
37	180.00	1.1900	837.00	.3200-01	.3900-01	.3385-03	.4111-03	.2280	1.840	516.5
37	180.00	1.2000	838.00	.2300-01	.2800-01	.2391-03	.2902-03	.1620	1.310	514.5
37	270.00	1.1900	834.00	.2100-01	.2600-01	.2203-03	.2675-03	.1490	1.200	514.8

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE (R4H110)

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.57000	835.00	.3600-01	.4400-01	.5246-03	.6333-03	.3740	3.030	510.8
64	90.000	1.1400	836.00	.7000-01	.8400-01	.1009-02	.1219-02	.7180	5.710	512.0
64	180.00	1.1900	837.00	.5000-01	.6000-01	.7185-03	.8683-03	.5090	4.110	514.6
64	180.00	1.2000	838.00	.4600-01	.5600-01	.6681-03	.8067-03	.4760	3.850	511.9
64	270.00	1.1900	834.00	.2800-01	.3400-01	.4064-03	.4908-03	.2890	2.340	512.0

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.57000	835.00	.4000-02	.5000-02	.7919-04	.9506-04	.6100-01	.4900	511.6
19	90.000	1.1400	836.00	.2200-01	.2700-01	.4539-03	.5450-03	.3470	2.750	512.2
19	180.00	1.1900	837.00	.1500-01	.1900-01	.3149-03	.3783-03	.2400	1.930	514.8
19	180.00	1.2000	838.00	.1500-01	.1800-01	.3037-03	.3647-03	.2320	1.870	513.2
19	270.00	1.1900	834.00	.1300-01	.1600-01	.2746-03	.3297-03	.2100	1.690	512.6

OH103A,AEDC V41B-V2, LFT LWR SIDE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	.00000	.57000	835.00	.9000-02	.1100-01	.9407-04	.1145-03	.6200-01	.5000	513.4
70	90.000	1.1400	836.00	.2200-01	.2700-01	.2232-03	.2717-03	.1470	1.160	514.2
70	180.00	1.1900	837.00	.1600-01	.1900-01	.1640-03	.1997-03	.1070	.8700	515.2
70	180.00	1.2000	838.00	.2100-01	.2600-01	.2175-03	.2646-03	.1430	1.150	513.8
70	270.00	1.1900	834.00	.1400-01	.1700-01	.1458-03	.1774-03	.9600-01	.7700	514.0

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4H111)

OH103A,AEDC V418-V2. LFT LWR SIDE FIRING NOZZLE

LFT LWR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.57000	835.00	.4000-02	.5000-02	.5414-04	.6527-04	.3900-01	.3200	507.2
67	90.000	1.1400	836.00	.2100-01	.2600-01	.3036-03	.3661-03	.2180	1.730	508.1
67	180.00	1.1900	837.00	.1500-01	.1800-01	.2103-03	.2537-03	.1510	1.220	509.8
67	180.00	1.2000	838.00	.1700-01	.2100-01	.2501-03	.3015-03	.1790	1.450	508.7
67	270.00	1.1900	834.00	.1300-01	.1500-01	.1751-03	.2160-03	.1290	1.040	508.0

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
45	7.880	24 98	86.18	1182.	88.10	.9740-02	.4230	3625.	.2984-03	.7086-07	.4740	.1044-01

RUN NUMBER	STN NO REF(R) =.040
45	.3906-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
45	.00000	.00000	845.00	.5800-01	.7000-01	.6028-03	.7326-03	.4020	2.840	515.1
45	.00000	1.1400	841.00	.1300-01	.1600-01	.1403-03	.1702-03	.9400-01	.7100	510.4
45	90.000	.00000	844.00	.5400-01	.6500-01	.5616-03	.6827-03	.3740	2.820	515.7
45	90.000	.94000	843.00	.1200-01	.1500-01	.1277-03	.1550-03	.8600-01	.6500	510.3
45	180.00	1.1400	840.00	.2500-01	.3000-01	.2563-03	.3112-03	.1720	1.300	512.2
45	270.00	1.2500	839.00	.1900-01	.2300-01	.1956-03	.2374-03	.1310	1.010	510.8

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
48	7.930	24.98	166.2	1238.	91.20	.1800-01	.7930	3712.	.5336-03	.7336-07	.8390	.1440-01

RUN NUMBER	STN NO REF(R) =.040
48	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
48	.00000	.00000	845.00	.4000-01	.4800-01	.5779-03	.6979-03	.4160	2.940	517.8
48	.00000	1.1400	841.00	.1400-01	.1700-01	.2039-03	.2458-03	.1480	1.120	511.9
48	90.000	.00000	844.00	.4500-01	.5400-01	.6432-03	.7768-03	.4630	3.480	518.1
48	90.000	.94000	843.00	.1200-01	.1400-01	.1683-03	.2030-03	.1220	.9200	512.4
48	180.00	1.1400	840.00	.2500-01	.3000-01	.3552-03	.4286-03	.2570	1.930	515.1
48	270.00	1.2500	839.00	.1500-01	.1900-01	.2222-03	.2679-03	.1610	1.240	511.9

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
71	7.970	25.00	338.1	1264.	92.20	.3550-01	1.578	3752.	.1039-02	.7420-07	1.630	.2039-01

RUN NUMBER	STN NO REF(R) =.040
71	.2108-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
71	.00000	.00000	845.00	.5000-01	.6000-01	.1012-02	.1222-02	.7450	5.230	527.8
71	.00000	1.1400	841.00	.1400-01	.1700-01	.2876-03	.3466-03	.2130	1.600	521.5
71	90.000	.00000	844.00	.4500-01	.5400-01	.9171-03	.1107-02	.6760	5.060	526.6
71	90.000	.94000	843.00	.1100-01	.1400-01	.2325-03	.2802-03	.1730	1.300	521.6
71	180.00	1.1400	840.00	.2700-01	.3300-01	.5596-03	.6749-03	.4140	3.100	524.2
71	270.00	1.2500	839.00	.1600-01	.1900-01	.3222-03	.3883-03	.2390	1.830	521.5

DATE 07 DEC 78

OH103A ORBITER MODEL 83-O HEATING DATA

(R4HJ02)

OH103A,AEDC V418-V2, LFT UPR SIDE FIRING NOZZLE

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
22	7.880	24.99	86.46	1187.	88.40	.9770-02	.4250	3633.	.2981-03	.7116-07	.4730	.1046-01

RUN NUMBER	STN NO REF(R) =.040
22	.3909-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
22	.00000	1.1400	841.00	.1800-01	.2100-01	.1836-03	.2233-03	.1230	.9200	518.7
22	90.000	.00000	844.00	.4500-01	.5500-01	.4751-03	.5784-03	.3160	2.370	522.2
22	90.000	.94000	843.00	.1200-01	.1400-01	.1247-03	.1516-03	.8300-01	.6300	519.0
22	180.00	1.1400	840.00	.2700-01	.3200-01	.2793-03	.3399-03	.1860	1.400	520.9
22	270.00	1.2500	839.00	.1900-01	.2300-01	.1971-03	.2397-03	.1320	1.010	519.1

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 25.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG.	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
3	7.970	24.98	337.7	1278.	93.20	.3540-01	1.576	3772.	.1026-02	.7502-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
3	.2124-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
3	.00000	.00000	845.00	.6000-01	.7200-01	.1222-02	.1472-02	.9180	6.450	526.4
3	.00000	1.1400	841.00	.1600-01	.1900-01	.3271-03	.3932-03	.2490	1.870	517.4
3	90.000	.00000	844.00	.4600-01	.5600-01	.9461-03	.1140-02	.7110	5.320	526.6
3	90.000	.94000	843.00	.1300-01	.1600-01	.2729-03	.3281-03	.2070	1.560	518.0
3	180.00	1.1400	840.00	.2800-01	.3400-01	.5792-03	.6970-03	.4380	3.290	521.7
3	270.00	1.2500	839.00	.1700-01	.2100-01	.3515-03	.4226-03	.2670	2.040	517.8

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PS'A	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
44	7.880	30.02	87.29	1178.	87.80	.9860-02	.4290	3619.	.3033-03	.7062-07	.4830	.1050-01

RUN NUMBER	STN NO REF(R) =.040
44	.3873-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
44	.00000	.00000	845.00	.4600-01	.5600-01	.4859-03	.5909-03	.3220	2.280	514.6
44	.00000	1.1400	841.00	.2000-01	.2400-01	.2099-03	.2548-03	.1400	1.060	509.5
44	90.000	.00000	844.00	.4600-01	.5600-01	.4804-03	.5843-03	.3180	2.400	515.4
44	90.000	.94000	843.00	.1400-01	.1800-01	.1515-03	.1839-03	.1010	.7600	510.1
44	180.00	1.1400	840.00	.3000-01	.3700-01	.3201-03	.3889-03	.2130	1.610	512.0
44	270.00	1.2500	839.00	.2100-01	.2600-01	.2207-03	.2679-03	.1470	1.130	509.8

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
51	7.930	29.99	164.6	1222.	90.00	.1780-01	.7860	3688.	.5353-03	.7241-07	.8470	.1430-01

RUN NUMBER	STN NO REF(R) =.040
51	.2926-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
51	.00000	.00000	845.00	.5300-01	.6500-01	.7642-03	.9242-03	.5390	3.810	515.9
51	.00000	1.1400	841.00	.1600-01	.2000-01	.2313-03	.2792-03	.1640	1.240	510.4
51	90.000	.00000	844.00	.4500-01	.5400-01	.6413-03	.7757-03	.4520	3.400	516.6
51	90.000	.94000	843.00	.1400-01	.1700-01	.2019-03	.2438-03	.1440	1.080	510.8
51	180.00	1.1400	840.00	.2900-01	.3500-01	.4115-03	.4973-03	.2910	2.200	513.4
51	270.00	1.2500	839.00	.1700-01	.2000-01	.2393-03	.2889-03	.1700	1.310	510.4

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
72	7.970	30.00	336.5	1273.	92.90	.3530-01	1.570	3765.	.1026-02	.7473-07	1.610	.2036-01

RUN NUMBER	STN NO REF(R) =.040
72	.2123-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(90TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
72	.00000	.00000	845.00	.5800-01	.7000-01	.1183-02	.1424-02	.8890	6.260	520.9
72	.00000	1.1400	841.00	.1900-01	.2300-01	.3859-03	.4636-03	.2930	2.210	513.1
72	90.000	.00000	844.00	.4800-01	.5800-01	.9853-03	.1186-02	.7410	5.560	521.0
72	90.000	.94000	843.00	.1600-01	.2000-01	.3318-03	.3988-03	.2510	1.900	514.9
72	180.00	1.1400	840.00	.3400-01	.4100-01	.6932-03	.8339-03	.5230	3.930	518.3
72	270.00	1.2500	839.00	.2000-01	.2400-01	.3992-03	.4796-03	.3030	2.330	513.1

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
25	7.880	29.98	86.91	1201.	89.50	.9820-02	.4270	3654.	.2962-03	.7200-07	.4670	.1051-01

RUN NUMBER	STN NO REF(R) =.040
25	.3927-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
25	.00000	.00000	845.00	.5800-01	.7000-01	.6091-03	.7389-03	.4160	2.940	517.2
25	.00000	1.1400	841.00	.1300-01	.1600-01	.1387-03	.1680-03	.9500-01	.7200	513.6
25	90.000	.00000	844.00	.4500-01	.5400-01	.4710-03	.5714-03	.3220	2.420	517.7
25	90.000	.94000	843.00	.1300-01	.1500-01	.1327-03	.1608-03	.9100-01	.6900	514.1
25	180.00	1.1400	840.00	.2700-01	.3300-01	.2868-03	.3478-03	.1960	1.480	516.1
25	270.00	1.2500	839.00	.1800-01	.2200-01	.1904-03	.2307-03	.1310	1.000	513.9

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 30.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
7	7.970	29.98	337.5	1276.	93.10	.3540-01	1.575	3770.	.1027-02	.7491-07	1.610	.2040-01

RUN NUMBER	STN NO REF(R) =.040
7	.2122-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
7	.00000	.00000	845.00	.6800-01	.8200-01	.1395-02	.1681-02	1.048	7.370	524.4
7	.00000	1.1400	841.00	.1400-01	.1700-01	.2876-03	.3462-03	.2170	1.630	521.8
7	90.000	.00000	844.00	.5200-01	.6300-01	.1068-02	.1286-02	.8030	6.020	524.0
7	90.000	.94000	843.00	.1500-01	.1800-01	.3070-03	.3696-03	.2310	1.740	522.0
7	180.00	1.1400	840.00	.3200-01	.3900-01	.6571-03	.7915-03	.4940	3.700	524.5
7	270.00	1.2500	839.00	.1700-01	.2000-01	.3391-03	.4081-03	.2560	1.960	520.6

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
28	7.880	35.04	85.69	1206.	89.80	.9680-02	.4210	3662.	.2908-03	.7230-07	.4580	.1044-01

RUN NUMBER	STN NO REF(R) =.040
28	.3965-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
28	.00000	.00000	845.00	.6500-01	.7800-01	.6755-03	.8194-03	.4640	3.270	518.8
28	.00000	1.1400	841.00	.1400-01	.1700-01	.1499-03	.1816-03	.1030	.7800	515.6
28	90.000	.00000	844.00	.4900-01	.6000-01	.5132-03	.6226-03	.3520	2.650	519.5
28	90.000	.94000	843.00	.1400-01	.1700-01	.1454-03	.1762-03	.1000+00	.7600	515.6
28	180.00	1.1400	840.00	.2800-01	.3300-01	.2880-03	.3491-03	.1980	1.490	517.2
28	270.00	1.2500	839.00	.1800-01	.2200-01	.1925-03	.2332-03	.1330	1.020	515.8

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
54	7.930	34.94	164.3	1227.	90.30	.1780-01	.7840	3695.	.5322-03	.7270-07	.8410	.1430-01

RUN NUMBER	STN NO REF(R) =.040
54	.2936-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
54	.00000	.00000	845.00	.5000-01	.6000-01	.7150-03	.8649-03	.5060	3.570	519.0
54	.00000	1.1400	841.00	.1700-01	.2000-01	.2416-03	.2918-03	.1720	1.300	513.8
54	90.000	.00000	844.00	.4300-01	.5200-01	.6097-03	.7377-03	.4310	3.240	519.8
54	90.000	.94000	843.00	.1400-01	.1700-01	.1988-03	.2401-03	.1420	1.070	514.7
54	180.00	1.1400	840.00	.2900-01	.3500-01	.4121-03	.4982-03	.2930	2.200	516.5
54	270.00	1.2500	839.00	.1700-01	.2000-01	.2423-03	.2927-03	.1730	1.320	513.8

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
73	7.970	35.06	337.2	1278.	93.20	.3540-01	1.574	3772.	.1025-02	.7502-07	1.600	.2040-01

RUN NUMBER	STN NO REF(R) *.040
73	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
73	.00000	.00000	845.00	.5400-01	.6500-01	.1104-02	.1328-02	.8350	5.980	521.3
73	.00000	1.1400	841.00	.2000-01	.2400-01	.4109-03	.4935-03	.3140	2.370	513.9
73	90.000	.00000	844.00	.4500-01	.5500-01	.9248-03	.1113-02	.6990	5.250	521.6
73	90.000	.94000	843.00	.1500-01	.1800-01	.3101-03	.3726-03	.2370	1.780	514.9
73	180.00	1.1400	840.00	.3600-01	.4400-01	.7391-03	.8885-03	.5610	4.220	518.1
73	270.00	1.2500	839.00	.2000-01	.2400-01	.4070-03	.4888-03	.3110	2.380	513.8

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OH103A ORBITER MODEL 83-O HEATING DATA

(R4HJ06)

OH103A.AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
40	7.880	35.05	86.00	1183.	88.10	.9720-02	.4220	3626.	.2975-03	.7092-07	.4730	.1043-01

RUN NUMBER	STN NO REF(R) =.040
40	.3912-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
40	.00000	.00000	845.00	.4300-01	.5300-01	.4514-03	.5493-03	.3000	2.110	518.8
40	.00000	1.1400	841.00	.1700-01	.2000-01	.1758-03	.2136-03	.1170	.8900	514.3
40	90.000	.00000	844.00	.4500-01	.5500-01	.4669-03	.5683-03	.3100	2.330	519.7
40	90.000	.94000	843.00	.1500-01	.1800-01	.1538-03	.1869-03	.1030	.7800	514.2
40	180.00	1.1400	840.00	.2700-01	.3300-01	.2817-03	.3424-03	.1880	1.410	515.8
40	270.00	1.2500	839.00	.2000-01	.2400-01	.2084-03	.2532-03	.1390	1.070	514.6

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 35.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
65	7.930	35.06	164.5	1227.	90.30	.1780-01	.7850	3695.	.5328-03	.7270-07	.8420	.1431-01

RUN NUMBER	STN NO REF(R) =.040
65	.2935-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
31	7.880	37.46	85.00	1205.	89.80	.9600-02	.4170	3660.	.2887-03	.7224-07	.4550	.1040-01

RUN NUMBER	STN NO REF(R) =.040
31	.3979-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
31	.00000	.00000	845.00	.4100-01	.4900-01	.4229-03	.5130-03	.2900	2.050	518.8
31	.00000	1.1400	841.00	.1400-01	.1600-01	.1409-03	.1707-03	.9700-01	.7300	514.8
31	90.000	.00000	844.00	.3900-01	.4800-01	.4087-03	.4958-03	.2800	2.110	518.8
31	90.000	.94000	843.00	.1300-01	.1500-01	.1321-03	.1600-03	.9100-01	.6900	514.6
31	180.00	1.1400	840.00	.2700-01	.3200-01	.2781-03	.3371-03	.1910	1.440	516.2
31	270.00	1.2500	839.00	.1700-01	.2100-01	.1784-03	.2162-03	.1230	.9400	514.9

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
58	7.930	37.47	167.4	1221.	89.90	.1820-01	.7990	3686.	.5449-03	.7235-07	.8630	.1442-01

RUN NUMBER	STN NO REF(R) =.040
58	.2900-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
58	.00000	.00000	845.00	.4000-01	.4900-01	.5825-03	.7047-03	.4100	2.890	516.9
58	.00000	1.1400	841.00	.1600-01	.2000-01	.2359-03	.2850-03	.1670	1.260	511.2
58	90.000	.00000	844.00	.4000-01	.4900-01	.5832-03	.7057-03	.4100	3.080	517.9
58	90.000	.94000	843.00	.1300-01	.1600-01	.1695-03	.2289-03	.1340	1.010	511.6
58	180.00	1.1400	840.00	.2900-01	.3500-01	.4152-03	.5019-03	.2930	2.210	514.1
58	270.00	1.2500	839.00	.1700-01	.2000-01	.2410-03	.2911-03	.1710	1.310	511.4

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
13	7.970	37.57	337.5	1279.	93.30	.3540-01	1.575	3774.	.1025-02	.7508-07	1.600	.2041-01

RUN NUMBER	STN NO REF(R) =.040
13	.2125-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
13	.00000	.00000	845.00	.5000-01	.6000-01	.1021-02	.1229-02	.7690	5.410	525.0
13	.00000	1.1400	841.00	.2100-01	.2500-01	.4309-03	.5181-03	.3280	2.460	518.7
13	90.000	.00000	844.00	.4600-01	.5500-01	.9316-03	.1122-02	.7020	5.260	525.4
13	90.000	.94000	843.00	.1500-01	.1900-01	.3161-03	.3800-03	.2400	1.810	518.9
13	180.00	1.1400	840.00	.3400-01	.4100-01	.6960-03	.8376-03	.5270	3.950	522.2
13	270.00	1.2500	839.00	.1900-01	.2300-01	.3958-03	.4758-03	.3010	2.300	518.1

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE (R4HJ08)

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 37.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
43	7.880	37.46	86.28	1178.	87.80	.9750-02	.4240	3619.	.2998-03	.7062-07	.4770	.1044-01

RUN NUMBER	STN NO RE' (R) =.040
43	.3895-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
43	.00000	.00000	845.00	.4500-01	.5400-01	.4647-03	.5652-03	.3080	2.170	515.6
43	.00000	1.1400	841.00	.2000-01	.2400-01	.2060-03	.2502-03	.1370	1.040	511.2
43	90.000	.00000	844.00	.4500-01	.5500-01	.4685-03	.5701-03	.3100	2.330	516.5
43	90.000	.94000	843.00	.1300-01	.1600-01	.1395-03	.1694-03	.9300-01	.7000	511.7
43	180.00	1.1400	840.00	.2900-01	.3500-01	.2986-03	.3629-03	.1980	1.500	513.4
43	270.00	1.2500	839.00	.1800-01	.2200-01	.1929-03	.2343-03	.1280	.9900	511.8

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
34	7.880	39.97	86.12	1200.	89.40	.9730-02	.4230	3652.	.2937-03	.7194-07	.4640	.1046-01

RUN NUMBER	STN NO REF(R) =.040
34	.3943-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
34	.00000	.00000	845.00	.5600-01	.6800-01	.5841-03	.7086-03	.3990	2.820	516.8
34	.00000	1.1400	841.00	.1700-01	.2100-01	.1796-03	.2177-03	.1230	.9300	513.6
34	90.000	.00000	844.00	.4000-01	.4900-01	.4211-03	.5110-03	.2870	2.160	517.5
34	90.000	.94000	843.00	.1500-01	.1800-01	.1533-03	.1858-03	.1050	.7900	513.5
34	180.00	1.1400	840.00	.2500-01	.3000-01	.2618-03	.3175-03	.1790	1.350	514.9
34	270.00	1.2500	839.00	.1900-01	.2300-01	.2011-03	.2437-03	.1380	1.060	513.7

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE (R4HJ09)

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
61	7.930	39.99	164.1	1223.	90.10	.1780-01	.7830	3689.	.5333-03	.7247-07	.8440	.1428-01

RUN NUMBER	STN NO REF(R) =.040
61	.2932-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
61	.00000	.00000	845.00	.3900-01	.4700-01	.5602-03	.6774-03	.3960	2.800	515.7
61	.00000	1.1400	841.00	.1700-01	.2100-01	.2435-03	.2939-03	.1730	1.310	510.3
61	90.000	.00000	844.00	.3900-01	.4700-01	.5598-03	.6771-03	.3950	2.980	516.6
61	90.000	.94000	843.00	.1400-01	.1700-01	.2066-03	.2494-03	.1470	1.110	510.5
61	180.00	1.1400	840.00	.2800-01	.3300-01	.3957-03	.4780-03	.2810	2.120	512.8
61	270.00	1.2500	839.00	.1700-01	.2000-01	.2359-03	.2848-03	.1680	1.290	510.4

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OH103A ORBITER MODEL 83-0 HEATING DATA

(R4HJ09)

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 40.00 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
16	7.970	40.00	337.7	1281.	93.50	.3540-01	1.576	3777.	.1024-02	.7520-07	1.600	.2042-01

RUN NUMBER	STN NO REF(R) =.040
16	.2127-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
16	.00000	.00000	845.00	.5400-01	.6500-01	.1096-02	.1318-02	.8320	5.860	521.2
16	.00000	1.1400	841.00	.1700-01	.2100-01	.3567-03	.4283-03	.2730	2.060	514.5
16	90.000	.00000	844.00	.4400-01	.5300-01	.8951-03	.1077-02	.6790	5.100	521.9
16	90.000	.94000	843.00	.1400-01	.1700-01	.2927-03	.3514-03	.2240	1.690	514.7
16	180.00	1.1400	840.00	.3000-01	.3700-01	.6209-03	.7462-03	.4730	3.560	518.2
16	270.00	1.2500	839.00	.1700-01	.2100-01	.3492-03	.4192-03	.2680	2.050	514.1

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
37	7.880	42.53	85.73	1191.	88.70	.9690-02	.4210	3639.	.2946-03	.7140-07	.4670	.1042-01

RUN NUMBER	STN NO REF(R) =.040
37	.3934-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
37	.00000	.00000	845.00	.5000-01	.6100-01	.5240-03	.6368-03	.3520	2.490	518.3
37	.00000	1.1400	841.00	.3000-01	.3600-01	.3135-03	.3804-03	.2120	1.600	514.1
37	90.000	.00000	844.00	.5700-01	.6900-01	.5932-03	.7211-03	.3980	3.000	519.3
37	90.000	.94000	843.00	.2700-01	.3300-01	.2840-03	.3446-03	.1920	1.450	513.9
37	180.00	1.1400	840.00	.3800-01	.4600-01	.3927-03	.4767-03	.2650	2.000	515.3
37	270.00	1.2500	839.00	.2700-01	.3200-01	.2780-03	.3374-03	.1880	1.440	513.9

OH103A,AEDC V418-V2, LFT UPR SIDE FIRING NOZZLE (R4HJ10)

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

•••TEST CONDITIONS•••

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
64	7.930	42.56	167.4	1224.	90.10	.1820-01	.7990	3691.	.5436-03	.7253-07	.8600	.1443-01

RUN NUMBER	STN NO REF(R) =.040
64	.2905-01

•••TEST DATA•••

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
64	.00000	.00000	845.00	.7900-01	.9600-01	.1145-02	.1384-02	.8090	5.710	517.1
64	.00000	1.1400	841.00	.4500-01	.5500-01	.6554-03	.7912-03	.4670	3.530	510.8
64	90.000	.00000	844.00	.7100-01	.8500-01	.1019-02	.1233-02	.7180	5.400	518.6
64	90.000	.94000	843.00	.4700-01	.5600-01	.6727-03	.8121-03	.4790	3.620	510.9
64	180.00	1.1400	840.00	.6300-01	.7700-01	.9143-03	.1104-02	.6500	4.900	513.0
64	270.00	1.2500	839.00	.3700-01	.4500-01	.5319-03	.6420-03	.3800	2.920	510.2

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE

(R4HJ10)

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
19	7.970	42.52	338.4	1276.	93.10	.3550-01	1.579	3770.	.1030-02	.7491-07	1.610	.2043-01

RUN NUMBER	STN NO REF(R) =.040
19	.2120-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(STO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
19	.00000	.00000	845.00	.4900-01	.5900-01	.1004-02	.1207-02	.7600	5.360	518.8
19	.00000	1.1400	841.00	.2100-01	.2500-01	.4200-03	.5042-03	.3210	2.420	511.8
19	90.000	.00000	844.00	.4000-01	.4800-01	.8165-03	.9823-03	.6170	4.640	519.5
19	90.000	.94000	843.00	.1500-01	.1800-01	.2981-03	.3579-03	.2280	1.720	512.0
19	180.00	1.1400	840.00	.3000-01	.3600-01	.6068-03	.7291-03	.4610	3.480	515.3
19	270.00	1.2500	839.00	.1900-01	.2300-01	.3929-03	.4716-03	.3000	2.310	511.4

OH103A,AEDC V41B-V2, LFT UPR SIDE FIRING NOZZLE

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
70	7.930	42.49	85.65	1171.	86.20	.9290-02	.4090	3610.	.2907-03	.6938-07	.4700	.1024-01

RUN NUMBER	STN NO REF(R) =.040
70	.3953-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
70	.00000	.00000	845.00	.4100-01	.5000-01	.4164-03	.5071-03	.2720	1.920	516.6
70	.00000	1.1400	841.00	.1700-01	.2100-01	.1755-03	.2135-03	.1150	.8700	513.6
70	90.000	.00000	844.00	.3700-01	.4500-01	.3772-03	.4595-03	.2460	1.860	517.2
70	90.000	.94000	843.00	.1500-01	.1800-01	.1548-03	.1884-03	.1020	.7700	513.7
70	180.00	1.1400	840.00	.2400-01	.3000-01	.2509-03	.3043-03	.1640	1.240	514.7
70	270.00	1.2500	839.00	.1800-01	.2200-01	.1860-03	.2264-03	.1220	.9400	513.6

LFT UPPR SIDE FIRE

PARAMETRIC DATA

MACH = 8.000 ALPHA = 42.50 BETA = .0000

TEST CONDITIONS

RUN NUMBER	MACH NUMBER	ALPHA DEG.	PO PSIA	TO DEG. R	T DEG. R	P PSIA	Q PSIA	V FT/SEC	RHO SLUGS /FT3	MU LB-SEC /FT2	RN/FT /FT X 106	HREF BTU/R FT2SEC
67	7.930	42.51	164.9	1226.	90.30	.1790-01	.7870	3694.	.5346-03	.7264-07	.8450	.1432-01

RUN NUMBER	STN NO REF(R) =.040
67	.2930-01

TEST DATA

RUN NUMBER	THETA	L/LN	T/C NO	H/HREF R=1.0	H/HREF R=0.90	H(TO) BTU/R FT2SEC	H(9TO) BTU/R FT2SEC	QDOT BTU/ FT2SEC	DTWDT DEG. /SEC	TW DEG. R
67	.00000	.00000	845.00	.3500-01	.4300-01	.5045-03	.6091-03	.3600	2.550	512.2
67	.00000	1.1400	841.00	.1800-01	.2200-01	.2638-03	.3180-03	.1900	1.440	506.9
67	90.000	.00000	844.00	.4200-01	.5000-01	.5974-03	.7215-03	.4260	3.210	512.9
67	90.000	.94000	843.00	.1500-01	.1800-01	.2107-03	.2540-03	.1510	1.150	507.2
67	180.00	1.1400	840.00	.3000-01	.3600-01	.4266-03	.5146-03	.3060	2.310	509.3
67	270.00	1.2500	839.00	.1700-01	.2100-01	.2439-03	.2940-03	.1750	1.350	507.0